

72 from whooping-cough. The annual death-rate from these seven diseases averaged 4 per 1000 in the twenty towns, and ranged from 1.2 and 1.4 in Portsmouth and Plymouth, to 5.7 and 5.8 in Liverpool and Leicester. The high zymotic death-rate was due to diarrhoea, scarlet fever, and measles in Liverpool, and to scarlet fever and diarrhoea in Leicester. The fatality of diarrhoea showed a general slight further decline last week; the annual death-rate from the disease, which averaged 1.9 per 1000 in the twenty towns, was equal to 2.9 in Salford, and to 3.3 both in Leeds and in Leicester. Scarlet fever showed the largest proportional fatality in Sunderland, Leicester, and Newcastle-upon-Tyne. The 23 deaths referred to diphtheria exceeded the numbers in recent weeks. Small-pox caused three more deaths in London (and six in Dublin), but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals further declined during last week to 79, from 111, 103, and 99 at the end of the three preceding weeks; and only three new cases of small-pox were admitted to these hospitals during last week, against numbers declining steadily from 35 to 13 in the four previous weeks.

Correspondence.

"Audi alteram partem."

TOXIC SYMPTOMS FROM THE USE OF DUBOISIN DROPS.

To the Editor of THE LANCET.

SIR,—The publication in your "Mirror of Hospital Practice" of the 6th instant, of some cases of poisoning from the application of duboisin drops to the eye, offers a long-sought opportunity for some remarks on this new mydriatic, which, with your permission, I will now avail myself of.

Within a few months of the introduction of the alkaloid of *Duboisia myoporoides* into ophthalmic practice, I was asked if I had observed toxic symptoms, such as giddiness and delirium, follow its application? I replied in the negative, and ascribed the alleged symptoms to some impurity in the particular specimen of the alkaloid that had been employed. But as time went on cases accumulated, and the circle of friends mentioning the occurrence of such symptoms widened, till this explanation no longer sufficed. Meanwhile my own experience preserved for the most part its negative character, although I very frequently had recourse to the drug. I could only account for this in two ways: first, I had from the beginning held that duboisin was far too strong to be prescribed indiscriminately, even if it were ever allowed to leave the surgeon's own hands; and second, having by me a considerable portion of the extract with which Dr. Ringer and I originally experimented (see THE LANCET, March 2nd, 1878, p. 304), I mostly used a solution of this instead of the alkaloid.

In March last I was induced to break my rule of not allowing patients themselves to have duboisin, and with the following result. About the time referred to I was asked by Dr. Ringer to see a gentleman under his care who had just been seized with a sharp attack of recurrent iritis in the left eye. From oft-repeated inflammation, the pupillary margin of the iris was so firmly bound down to the anterior capsule of the crystalline that we despaired of ever getting the pupil to dilate. Nevertheless, we resolved to try. Leeches were applied, and the pharmacopœial solution of atropia was dropped into the eye every ten minutes for an hour, and then at intervals of two hours. Several days were consumed by this mode of treatment, but with scarcely any appreciable dilatation of the pupil, although the pain abated. As an earlier experiment had given rise to the notion that the extract of duboisia was stronger than atropia, and later trials had shown that the alkaloid duboisin is unmistakably stronger, we determined to see whether duboisin would accomplish what atropia had failed to do. In many other respects the case was suitable. Our patient was not only an unusually intelligent man, but he had had twenty years of grievous personal experience in the treatment of iritis, and was, moreover (except for an in-

eradicable distrust of iridectomy), fully alive to the importance of energetic treatment. He could, therefore, be entrusted with more potent remedies than most persons. Accordingly we prescribed a solution of duboisin, four grains to the ounce, to be used every three hours, and with some impatience awaited the next visit. We saw him again next morning, and were somewhat disappointed not to find any signs of duboisin having done more than the atropia. While we were commenting on this, our patient broke out—"Oh! I could not use the new drops. I applied them once, but they made me so giddy I could not stand." To urge him to give the solution another trial would have been labour in vain. He had made up his mind to have nothing more to do with it, and so have I, except when I can apply it myself.

I have long felt that duboisin, like many other new remedies, has been, and still is, extravagantly abused. It is of immense power and value, and necessary only in special cases, for which it should be reserved. Bulk for bulk, it is much stronger than atropia, and should be employed with corresponding caution. I may add that the remarkable difference in the relative strengths of duboisin and atropia will be very strikingly shown by Dr. Ringer in a paper in the forthcoming number of the *Practitioner*.

I am, Sir, yours, &c.,

JOHN TWEEDY,

Assistant-Surgeon Royal London Ophthalmic Hospital.

Sept. 1879.

THE TARTAR STEPPES, ICELAND, &c.: THEIR IMMUNITY FROM CONSUMPTION.

To the Editor of THE LANCET.

SIR,—On my return from Ireland, I find in your journal of August 23rd last a letter from Mr. Cullimore, ex-surgeon to the Residency in Burmah, on the question of the value of mountain air in phthisis, and the immunity from that disease enjoyed by the inhabitants of the Tartar steppes, of Iceland, and the Shetland islands, as mentioned by me at Cork in the discussion following Dr. Bennet's paper read at the meeting of the British Medical Association.

Mr. Cullimore appears to regard my statement as favourable to the mountain-air theory, on the assumption that the steppes of Tartary are elevated some 3000 to 4000 feet above the sea level, and are in the same latitude (40° N.) as Naples or Madrid. On both these points he is in error.

A. von Humboldt ("Aspects of Nature," translated by Mrs. Sabine, 1849) states: "Steppe is a plain representing the bottom of a great Mediterranean sea." He visited the like districts of America, as well as the Kirghiz steppes between the Don, the Wolga, and the Chinese lake Dsaisang, these latter presenting an extent of nearly 2880 geographical miles. In the work just named (page 73) he says: "The erroneous idea of a single, vast, elevated plain, occupying the whole of Central Asia (the plateau de la Tartarie), took its rise in France during the latter half of the eighteenth century. The inaccuracies have now vanished. If the word 'plateau,' so often misemployed in modern works on geography, is to have its use extended to elevations which hardly present any visible difference in climate and vegetation, the indefiniteness of the expressions 'highlands and lowlands,' which are only relative terms, will deprive physical geography of the means of expressing the idea of the connexion between elevation and climate, between the profile or relief of the ground and the decrease of temperature. Lowlands is an expression for flats of little more than 200 to 1200 feet of elevation, and the definition of Steppe has already been given."

If we take the latitude of 40° N. in Tartary, we find ourselves on this side of the Caspian sea, amongst the Caucasian mountains; whilst to the eastward of that sea lies Turkestan, near the Aral sea, as to which little indeed is known of interest to medical science. In speaking of the Tartar steppes, what is really meant is the district of lowlands in European Russia from the Don to the Ural rivers, the plains on each side of the Wolga (45° to 55° N. lat.), and the towns between this last-named river and the city of Kasan. Kasan (according to Kupfer, "Voyage dans L'Oural, 1833," page 278) is only eighty Parisian feet above the sea-level of the Baltic, an elevation considerably decreased at Astrachan, at the mouth of the Wolga, and its embouchure into the

Caspian sea. This course of the Wolga from Kasan to Astrachan measures 225 geographical miles, and is only occasionally touched by the low-lying spurs or inferior ranges of the Ural mountains; whilst the plains between the towns of Samara and Ural to the north, and the Caspian to the south, are studded with salt lakes, marshes, and sands; vegetation is, nevertheless, abundant, and well sustains the splendid studs of mares which accompany the nomadic Tartar tribes.

The towns which have lately become more prominent in medical literature are Samara and Orenburg, and these are well described in Dr. Ucke's work, "Das Klima und die Krankheiten von Samara," Berlin, 1863. From this it is clear that Samara is but a few feet above the level of the sea, and that the Wolga yearly overflows the country on its right bank. Dr. O. de Maydell, Medical Inspector to the Russian Government in Orel (giving an account of six years' residence in Orenburg), and von Humboldt (passing through Orenburg with Ehrenberg and Gustave Rose) both state that Orenburg itself, notwithstanding its distance from the Caspian, lies below the level of the ocean. It is a curious and often-recorded fact that (as shown in Peterman's map of Russia in Europe) the Caspian is about eighty-five feet below the level of the Black sea, and that the Aral sea is 117 feet above the Caspian level, or thirty-two feet above that of the Black. Further evidence will scarcely be needed to convince Mr. Cullimore that the Tartar steppes which have any interest for the medical world (those, namely, known to possess immunity from consumption) are to be regarded, in respect to their elevation, as scarcely, if at all, above the level of the sea, in any part of their extent, whilst in some portions they are actually below such level.

With regard to Mr. Cullimore's scepticism on, as I think, the well-established absence of consumption in Ireland, his "difficulty of obtaining reliable information in such a remote and sparsely populated country," I would refer him to Dr. Arthur Leared's valuable articles on the subject in the *British Medical Journal* during January, February, and March, 1869, as well as to that of his friend, Dr. Hjaltalin of Iceland (*ibid.*, August 28th of the same year). Both writers have, in my judgment, sufficiently proved the fact that phthisis, when it does occur in Iceland, is never indigenous, but always imported from a foreign country. According to some authors (Samuel Hibbert, Horrebow, &c.) the Shetland, Faroe, and Hebrides islands are, like Iceland, almost entirely exempt from consumption; and the late Dr. Edward Charlton, of Newcastle-upon-Tyne, states in a published pamphlet that in Iceland and the Faroe islands phthisis is absolutely unknown, and that it was very rare in Shetland until the commencement of the present century.

In summing up these few considerations, on the hypothesis that consumption does not exist in the several countries which have been mentioned, how is such immunity to be accounted for? What is there in common in those countries likely to shield their inhabitants from this dreaded disease? Is there any agreement in the geographical position, the meteorology, the geology, the vegetation, the food, or even in the habits of the people? If such there be, it should be of the highest value in determining an interesting and most important question.

Speaking for myself, I have little belief in any *exclusive* influence of climate (whether upon high or low levels) upon phthisis, without a proper diet and medical treatment, either in preventing, arresting, or curing the disorder. Phthisis may, and does, arise from various causes, and, in assuming various forms, will, doubtless, require varied treatment; but I am aware that hopes of success may now be indulged which could not justifiably exist at any previous period of medical history.

The Tartar steppes are known to be visited mostly in summer, when the air is hot and dry and patients can drink and perspire most freely; but visits are not paid for the sake of the climate, but for that of the renowned beverage of the country, which beverage is considered to be a specific anti-phthisicum, and is consumed in the largest possible quantities. It is the belief of great numbers of medical men (as Drs. Ucke, Chomenkoff, Postnikoff, Maydell, Neffel, Schnepf, Stahlberg, &c.) that if anything whatever can be found to check consumption, the beverage just referred to (koumiss) is that something, and especially in a climate like that of the Tartar steppes during the summer. The general results so attained have been marvellous, and such as to surpass the benefits which have been obtained either

by high altitude or by any other mode of treatment. Excellent evidence has already been forthcoming on the subject, and much more could be furnished in response to any general inquiry.

Coincidentally it happens that in Iceland, the Faroe, and Shetland isles the favourite drink is likewise a partially fermented liquor made from whey—the serum of milk, and Dr. Charlton says that "in proportion as this drink (called 'Bland') has fallen into desuetude in Shetland, where we often enjoyed it forty years ago, and been substituted by tea and coffee, so has phthisis increased." Thus it is clearly to be shown that if no other resemblance can be indicated between the regions to which I have referred, there is at least that of a like dietary, the importance of which my own not inconsiderable experience, both in Germany and in this country, does not lead me to underrate.

I am, Sir, your obedient servant,

V. A. JAGIELSKI, M.D., M.R.C.P.L.,

Physician to the Infirmary for Consumption, &c.

Weymouth-street, Sept. 3rd, 1879.

A GALLANT ACT.

To the Editor of THE LANCET.

SIR,—I have read with much pleasure of the gallant deeds done by many of England's brave sons at the battle of Kambula and elsewhere throughout the war now happily drawing to a close, but nowhere have I seen publicly mentioned an act which, for bravery and coolness, has not been surpassed by any other in this campaign. Though reported officially to the Medical Department, a considerable time must elapse before it receives the recognition which it seems to deserve. Allow me, through the medium of your columns, to be the means of rescuing it from oblivion, in justice to two of my brother officers who already served with distinction in the Ashantee campaign.

During the hottest part of the action at Kambula, on the 29th March last, Private Daley, of the 90th L. I., who had sustained a severe wound of the upper arm, was carried to the Field Hospital; he was bleeding profusely, and it was found necessary to amputate his arm immediately. This was successfully done, under a very hot fire, by Surgeon D. Thornton, assisted by Surgeon A. Lennon Brown, A.M.D.

It is needless to remark that, even under the most favourable circumstances, the performance of a surgical operation requires the greatest coolness and steadiness on the part of the operator and his assistants. The best proof that these officers possess such qualities in a marked degree lies in the fact of their having saved their patient's life under such very trying circumstances. I am happy to state the man made a good recovery. Had the operation been deferred until the termination of the action, the man would, in all human probability, be amongst his dead comrades of the 90th.

I am, Sir, your obedient servant,

CHARLES MCD. CUFFE,

Surgeon-Major, Senior Medical Officer, Wood's Column, Camp, Wood's Flying Column, Zululand, July 22nd, 1879.

HARVEY'S REMAINS.

To the Editor of THE LANCET.

SIR,—As nothing has been done since Dr. Richardson wrote his interesting paper a year ago, I venture to trouble you with this letter. I paid a visit to the Harvey vault in Hempstead Church on August 26th, and was amply repaid for my trouble. The church is worth a visit, and the drive from Saffron Walden is very pretty. Something should be done at once to preserve the remains from further decay, and if they cannot be transferred to Westminster I think at any rate they might be put into another lead coffin and removed to another portion of the vault where the wet cannot reach and stones be thrown. The expense of this would be trifling, providing the consent of the family can be obtained. It appears there are only female descendants of the family left, and this may account for the state of the vault; the bars of the windows want repairing, and some close wire netting placed to prevent stones and dirt getting in.

To restore the church would cost a great deal, although the building is well worth it; it can be seen for some miles,