

Provincial Medical & Surgical Journal.

WEDNESDAY, OCTOBER 17, 1849.

THERE are few subjects that have been considered of more importance to mankind than the preservation of health and the removal of disease. Disease may be said to comprehend every deviation from the natural structure and functions of the various organs of the body; it always induces more or less alteration in the feelings of the individual, and always tends to lessen the enjoyment, and probably to shorten the duration of our natural existence. Sometimes it is limited to derangements of function, producing temporary discomfort and incapacity; at other times it occasions organic alterations of structure, which render us permanently subject to its influence, and compel us unwillingly to succumb to its power. In both instances it warns us that we are under punishment for the transgression of the laws of our Creator. Whatever may be the determining causes of functional or organic disease, there can be no doubt that disease originated in sin, and that it was sent into the world as a warning against, and a punishment for, sin. It is a weapon wielded by the Almighty, which he uses mildly for our correction, and powerfully when we rebel against his threatenings; but like all other divine punishments it is tempered with mercy, human knowledge and human means having been made instrumental, to a considerable and increasing extent, to the alleviation of evils entailed upon us by disease. With the exception of our first parents before the fall, no people, community or nation in the world has been, from the time of Adam's transgression to the present, exempt from the ravages of disease; its influence has been, and is, universal; and although, in all ages, men of great talents and acquirements have devoted their best energies to control and remove it, success in the art of curing disease is still limited and imperfect. At the present day we find considerable attention paid to this momentous subject; we find learned men of all countries striving to attain such knowledge as may enable them to combat successfully with those inflictions of Providence which, like cholera, spread devastation around us. It cannot be said that we have not succeeded to a greater extent than our forefathers, but yet when we make a comparison between the amount of knowledge we now possess,

and that of the Greek and Roman physicians in former times, we are obliged to confess that the progress we have made in the healing art bespeaks the inability of man to cope with, and the insufficiency of art to counteract, the dispensations of Providence. Our thoughts have been led in this direction by the contemplation of the inefficiency of medical science to remove the frightful calamity which is now visiting our own country; although we have been greatly favoured in comparison with some other nations, yet have we to lament the loss of thousands of our population, as well as some of the ornaments of our profession; and notwithstanding the great amount of attention brought to bear upon the subject of cholera, our knowledge of everything connected with it, except the history of its progress and the number of its victims, is in the greatest degree of confusion and obscurity. In the midst of darkness, however, a gleam of light may one day appear, and some happy discovery as to the cause of cholera, may disarm it of half its terrors. At present, the most successful means of staying the progress and lessening the severity of the great pestilence, has been the removal of those moral evils, poverty and impurity, which abound amongst our population; but if the investigations of medical men be permitted to discover some direct medicinal means of curing the disease itself, the relief obtained by the removal of filth and destitution will be perfected by the restoration to health, of those who may henceforth be sufferers from this serious and rapidly-fatal malady. The importance of such a discovery would be incalculable; reasoning from past experience, however, the discoverer might not be rewarded according to the magnitude of the benefit conferred upon the public; but should the world prove ungrateful, his more estimable reward would be the consciousness of having benefited his fellow-creatures, and reflected honour upon his own profession.

The above sentiments had scarcely been committed to paper, when a subject was presented to our notice which, though as yet imperfect in its details, is sufficiently interesting at the present moment to warrant us in commending it to the attention of our readers. We allude to the discovery, by Mr. Brittan and Mr. Swayne, of certain fungoid organisms in the "rice-water" discharges of cholera, as well as in the atmosphere of infected districts.

That epidemic diseases in general originate in the presence of vegetable or animalcular parasites, has long been a favourite theory, and has quite recently been made the subject of a special essay by Dr. Mitchell, of Philadelphia.

The same view as regards its vegetable origin has been taken of cholera in particular by Dr. Cowdell, of Dorchester, and others. But though "coming events" have thus "cast their shadows before," the positive demonstration of facts substantive of this doctrine, have been few, and have failed to attract any great share of attention. In respect of cholera, it may be stated that Donnè had noticed the existence of a species of *vibrio* in the rice-water evacuations, and that the fact has since been confirmed by Pouchet, (*Comptes Rendus*, Avril, 1849), and by Mr. Burnett, an American, who describes them as special bodies, of 1-12.000 to 1-8.000 of an inch diameter, when seen singly, and possessing great activity of movement.

We mention these observations merely to show that the attention of microscopists has some time since been directed to the presence of peculiar bodies in choleraic discharges. What immediately concerns us at the present time is, the announcement that certain organisms, of coniferoid aspect, are constantly seen in these fluids, as well as in the air of infected localities condensed for the purpose of examination. These organisms are likewise described as of a circular figure; they vary in dimensions and development, according to the source from which they have been obtained, being 1-1.000 of an inch diameter as seen in the atmosphere, 1-3.000 in the vomited matters, and acquiring a diameter of from 1-1.000 to 1-500 of an inch in the intestinal fluids. They are said to exhibit a double outline, with a centre filled with granules, and are well represented in the wood-cuts which accompany Dr. Brittan's paper, (*Medical Gazette*, Sept. 28th.) The interest attached to this discovery does not, however, rest here, for it would appear that our associate, Dr. W. Budd, has met with the same bodies in the water consumed in the cholera districts; and Dr. Cowdell has announced their presence in the perspiration of cholera patients.

We shall not attempt to predicate what import these discoveries are destined to assume as pathological data. Prone as is the human mind, unless well disciplined, to jump to conclusions, especially when, as in the present case, its

saltatory efforts are too likely to be encouraged by a natural and excusable hope that we are at length about to unravel the mysteries of the origin of the pestilence, the assumption will doubtless be, that in these little annular bodies, taken into the system in the water consumed, we behold the *fons et origo mali*; indeed, if we mistake not, this idea has already been urged by Dr. Budd, although Mr. Brittan has maintained a wise reserve upon the subject. Thankful should we be were it possible to regard such a view as a legitimate deduction from the premises advanced, for then should we have this fell disease as completely under our control, as it may suit the designs of Providence that disease should be under the control of human efforts; but objections force themselves upon us *in limine*, which induce us to pause ere we can admit that we are so near the solution of the enigma which has for so many years baffled all attempts at its comprehension. Not only must these identical observations be confirmed by other inquiries, but it must be positively ascertained that these bodies do not exist in healthy fæces, or in the evacuations in other diseases. This has yet to be done. Again, a most important link in the chain of evidence necessary to exhibit the agency of these annular bodies as the cause of cholera, is their discovery in the blood; without this there is nothing to determine that they are not the effects of the choleraic poison, rather than an integral portion of the poison itself. Other objections suggest themselves to our mind, which it would at present be premature to enumerate; enough has, we think, been said, without inculcating an irrational scepticism, to show the necessity of exercising some caution in our appreciation of the value of the present inquiries; we would, however, in the meantime, congratulate Mr. Brittan on having struck upon a track which may probably lead to results of incalculable importance, and we trust that among the members of this Association there will be found many who are both able and willing to aid him in his investigations.

INQUIRY

ON THE OPERATION OF CRANIOTOMY.

To the Editors of the *Provincial Medical and Surgical Journal*.

GENTLEMEN,—My letter addressed to the members of our Association only went so far as to respectfully