

the spine. All the pain was in the head. The liver was enlarged slightly in all the cases. It is clear to me that this epidemic was caused by the filth of Ansty. Of filth as the origin I am positively convinced. In the absence of a diagnosis I shall content myself by calling it sewage fever.

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## IX.—MEDICAL ESSAYS AND REVIEWS.—No. II.

By JOHN BOYD, M.D., Slamannan.

AMONG the Portuguese publications that have come to hand prominent mention is merited by a small collection of papers headed "Questoes Hygienicas, Mephitismo Animal, Esgotos da Rio de Janeiro e sua influencia sobre a Saude Publica"—the Drains of Rio Janeiro and their influence on Public Health; concluding with "Alguns Conselhos Hygienicas ao Povo"—Some Hygienic Counsels to the People—by Dr Joao Pires Farinha, who is Physician of Prisons in the Brazilian capital. He begins with a review of the opinions of various authors, mostly French, on the influence of putrefying animal matters, dejecta, etc., on the general health, quoting some as to these being innocuous, others highly prejudicial, and sums them up by remarking that these emanations, if usually harmless, in certain circumstances may become most deleterious by general differences, varying degrees of condensation, condition of the locality, atmospheric pressure, and the continuance of residence of the individual in these localities. Some amusing notices from Fleury are related as to the shifts for the obtaining of subjects effected by the celebrated anatomist Antoine Dubois, of Paris, of whom his son, Paul Dubois, narrates that he attained to 83 years, and was in perfect health all the time, notwithstanding his apartments, even his sleeping chamber, were stuffed with anatomical macerations and preparations, which remind us of the resurrectionist traditions of the ante Burke and Hare epoch. A historical sketch of the conditions of Rio Janeiro as regards drainage is prefixed to the interesting account of the existing sewerage of that city. This was first constituted by a series of open ditches commenced before the second French invasion in 1711, and then with defensive weirs enlarged into a canal, which received the storm-water and all the household refuse and ordure of ten streets from Rua de Cano to Prainha, with that of the Seminario de S. José and the prison de Aljube to boot. This waterway was so badly levelled that in high tides the water was refluxed to the Rua da Alfandega, while the torrent-rains (*chuvas torrenciæ*) caused the adjacent streets to be flooded and the sewage matters deposited in all directions. These made the neighbourhood so unhealthy that few escaped the incessant epidemics of putrid fevers. Moreover, myriads of mosquitoes originating in these ditches added largely to the nuisance. They were partially covered with paving-stones, but this measure seemed to augment the virulence of the mephitic

emanation. In proportion as the city increased additional ditches were excavated, which only served to render the hygienic status worse, and not to drain off the tropical storm-waters; no scientific plan was adapted to purify the difficult topography of that capital, surrounded by gigantic mountains and containing numerous rocky masses within its bounds. This condition continued till the creation of the Companhia City Improvements in 1857,—the gloomy spectacle was daily exhibited of long strings of negro slaves or freedmen, each loaded with a barrel charged with faecal matter, proceeding in procession from the parishes near the port, depositing their burdens in adjacent fields, assailing the noses of every passenger embarking or disembarking, and putting everybody passing that way in mortal terror of coming in contact with them, or, as termed in Rio, of being “attacked by a tiger!”

The Companhia City Improvements was empowered to organize a system of mixed drainage, *i.e.*, separate drains for rain water and for sewage, in the fashion of the plans adopted in Leicester and other English cities. Practically those drains are divided into five large districts, acting independently. The main drains, or *galerias*, are brick built, oval, and from 1·10 metres to 2 metres high and 1½ metres in width. The solid contents are raised at fixed distances, and disinfected with sulphate of alumina, lime, and charcoal, and these dried and converted into *proudrette*, beneficially utilized in agriculture. The water-pipes within the city do not appear, from inadequate levels, to carry off their contents duly, hence from stagnation or intense heat they are said to be insalubrious rather than otherwise,—so much so, that lively debates are carried on as to whether the city improvements are healthy or otherwise. Statistics of the mortality of Rio de Janeiro from 1853, before the institution of this drainage system, to 1879, appear to give weight to the accusation, thus:—

From 1853 to 1856	the average amount of mortality was	8,696
„ 1857 to 1860	„	9,766
„ 1861 to 1864	„	8,525
„ 1865 to 1868	„	8,944
„ 1869 to 1872	„	9,696
„ 1873 to 1876	„	12,758
„ 1877 to 1879	„	11,541

In other cities the mortality has been observed to notably diminish after the institution of similar public undertakings, but the reasons for the non-attainment of such favourable results in the Brazilian capital appear to consist in the rapid increase of population; the marshes still remaining within the city bounds; the mud allowed to lie and dry in the streets; neglected water-tanks and ponds; the *cortiçoes* or hives—masses of over-crowded habitations, where families and individuals swarm with poor immigrants, Italians, etc., where every hygienic rule is outraged; to the hospitals scattered all over the city; to the slave-markets, where

the unhappy negroes dwell in even worse conditions than the Italians in the *cortiços*; to the continual excavations of the water and gas companies; to the great cutting down and consumption of trees for building purposes; and finally, to the abrupt mutations of temperature incident on weather changes. The importation of yellow fever from infected ports is another important factor in this dismal list of morbid causes. With reference to the last named, Dr Farinha advises during its prevalence the use of carbolic acid and coal tar,—the former to be sprinkled through the streets, fosses, drains, etc., the latter to be largely burned in the infected districts. For his ably written and most instructive essay, the author has laid us under indubitable obligations.

From the Brazilian capital we have lately received what promises to be an important serial in professional literature—*Revista dos Cursos Práticos e Theoreticos da Faculdade de Medicina do Rio de Janeiro*—Review of Practical and Theoretical Courses, by the Medical Faculty of Rio de Janeiro—under the charge of five professors in that university. The first paper, by the Professor of Clinical Surgery, V. Saboia, is a study of pseudo-arthritis subsequent on fractures of the limbs, which is sufficiently erudite, sensible, and instructive, illustrated by the relation of five cases recently treated in the Hospital da Misericórdia. The author appears to consider that in cases of false joint the surgeon is generally to blame,—an axiom to which considerable exception may be taken.

Rather an amusing relation is given by Professor Souza Lima of a case of post-mortem examination of a newly-born infant at term and fully developed, which was judged to be an infanticide, from presenting two ecchymotic contusions on the temporal and infra-maxillary regions, a reddish glow on the sternum, and a perforation on the upper palatine vault leading to the cranial interior. The lungs floated freely in water, and the evidence of the child being born alive and subsequently killed appeared to be complete. To Dr Souza Lima's surprise two pupils presented themselves, and stated that the baby was the product of a difficult parturition whereat they attended—a breech presentation, wherein they had to perform partial craniotomy to complete the delivery. The prolonged passage through the canal and the special presentation appears to have admitted air into the foetal thorax; which case causes some doubt to be thrown on the test of pulmonary docimasia as conclusive of distinct respiration and live birth. The same author gives a notice of cadaveric examination of a negro found killed by a gun charged with shot No. 8, passing obliquely upwards through the thorax; and from the precise and careful way in which the report was drawn up it reminded us of some of Dr Littlejohn's work, only he might not have referred so largely to the views of Ollivier, Briänd, Chaudé, and Lucheze of the Medical School of Angers.

A lecture on Blepharoplastia in the Clinica Ophthalmologica is

given by Prof. de Gouvea, wherein, after a definition of the subject, all the various processes, from that of Dieffenbach, modified by Szymanowsky, to that of Wolfe of Glasgow, are enumerated and illustrated by well-executed woodcuts, which, with the lithographic plates at the end of the number, show that the Rio artists can compete with those of any metropolis. A *résumé* of the latest discoveries as relating to the essential element of cholera from Pasteur, Roch, Snow, Macnamara, and others, is given by Prof. C. de Freitas, which is highly readable and creditable, though not perhaps advancing much that is new. From the laboratory of Anatomia Pathologica Dr J. M. Rezende gives an account of a discovery of a liver with a single lobe, triangular in form, found in the cadaver of a negro, and numerous German and French anatomists are quoted displaying the rarity of this anomaly. The lecture of Prof. Erico Coelho on the Limits of Clinical Experimentation; the paper of Lima e Castro on the Sub-periosteal Resection of the Femur; the concluding observations by Prof. Torres Thomem on a very rare case of Stenosis of the Tricuspid Orifice diagnosed during life and verified by the autopsy, made me feel gratified by the renewed acquaintance with the Portuguese that enabled me to enjoy the perusal of them.

In the 5th Sept. No. of the *Weekblad van het Nederlandsch Tijdschrift voor Geneeskunde*, I see a notice of the vaccination at Rio Janeiro against yellow fever, introduced by Dr Domingo Freire, which has obtained so much confidence that the Mexican Government is endeavouring to secure the application of it at Vera Cruz. Freire's *procédé* was regulated at the expense of the Brazilian Emperor by Babourgeon, a pupil of Pasteur, and many people, especially captains of vessels, have voluntarily subjected themselves to this prophylactic. This is highly befitting in the subjects of that monarch who, when he entered a scientific reunion at Paris, caused some commotion, and the audience were calmed by the remark that there was only an additional philosopher present—"il n'y a qu'un savant de plus."

We are favoured with some numbers of the *Transactions of the Sei i Kwai*, a society for the advancement of medical science in Japan. The June number commences with a notice of the Roma-ji Kwai—the name of a society recently organized in Tokyō, with the object in view of establishing a uniform system of transliteration of Japanese in Roma-ji or Roman letters, and of gradually introducing the same as a substitute for the present system of writing with Chinese ideographs, and Japanese *kana* or alphabet. Recognising the advantages which the introduction of such a system will give to the student of medicine, as well as to the progressive practitioner, by bringing them, so to speak, in closer contact with the knowledge of which they are in search, the councils of the Sei i Kwai have decided to devote a portion of the *Transactions* of the Society to articles in Japanese written in Roma-ji. We have English reports of the meetings of the Society,

the 169th, with Dr Takaki, F.R.C.S., in the chair, when a curious case of whitlow simultaneously involving the tips of both middle fingers of both hands in Takenouchi Yome, æt. 18, which the President suggested was due to the practice of the maid servants there, when washing the whole length of the verandahs, of pushing the wash-cloth before them.

Dr Kimura exhibited a patient, Maruyama, æt 44, from whom there had been amputated the left arm at the shoulder-joint on account of a recurring malignant growth at the axilla. Dr Takaki considered it had been sebaceous tumour at the outset, which had burst, leaving the cyst behind, and quoted Erichsen's opinion that this may lead to the formation of a fungous growth.

Dr S. Suzuki gave the results of some experiments with the *filaria sanguinis hominis* recently done by him, in which he had used various culture processes with negative results. He narrated the history and post-mortem of the patient, who had suffered from chyluria, anæmia, and thoracic pains. Filariae were found in the blood, and he died three months after from pleuritis. The autopsy showed extensive caseous and tuberculous infiltration in both lungs, in liver, and left kidney.

Next meeting is principally occupied with cases of caries of spine; and in the following number a case of caries of the supr. maxillary bone, Miss Takasu, æt. 21, was successfully treated by Dr Takaki, and discharged much improved in appearance; while Dr S. Sato, Professor of Surgery in University College, Tokyō, gives a highly readable notice of his performance of the rhinoplastic operation in Harigaya, æt. 30, and a historic account of this newly introduced operation in Japan.

W. Taylor, M.D., Ozaka, gives a paper on Japanese Kakke or Beriberi, in which he details the results of some experiments in cultivation of a micro-organism he discovered in the blood of such patients,—flasks to flasks from 8 to 12 removes; then one hare, two rabbits, one monkey, and two dogs were inoculated. The dogs gave no results, but all the others presented symptoms of kakke, and served to inoculate others of the same species. This micro-organism was found most abundant within the sheaths of the nerves, the ganglia, the blood, and the kidneys. It was also found in the urine of kakke patients, in canal water, in rice, and in the soil. From each of these sources pure cultures were developed, and inoculation made with development of kakke in the animals inoculated. Experiments were made showing that the spores are not killed in the process of cooking rice. Hence one of the most probable sources of infection is the eating of rice thus infected, especially cold, a prevalent custom among the Japanese. From the peculiar screw-like movements of this micro-organism he named it *Beri-beri Spirillum*.

The war of Sei-nan in 1877 gave rise to a paper on gunshot wounds by S. M. Suzuki, staff-surgeon, I.J.N. He states that in the battle referred to conico-cylindrical bullets were used by the

enemy at first, but spherical bullets in the end; cannon balls and shells were used by them only to a limited extent from lack of such projectiles. This eight months' war produced 11,298 cases of wounds, of whom 9290 recovered and 2008 died, or 82¼ per cent. of cures, and 17¾ of cases with fatal issue. The factors of the latter were erysipelas, diphtheria of wounded surfaces, gangrene, pyemia, septicæmia, and tetanus.

In this campaign most of the amputations were performed secondarily, and with better results than in cases where primary amputation was done. Dr Ishiguro, surgeon-major of the army, thinks that unless circumstances should admit of the patients being kept at rest for some days, primary amputation should not be performed on the field of battle.

The review department in the publication is in Japanese printed in Roman characters, and the euphonious admixture of vowels and consonants, and the vocables frequently ending in *u*, give the impression at first glance of a resemblance to the physiognomy of the Roumanian medical journals we received from Bucharest.

The larger portion of this organ of the profession in the Mikado's dominions is printed in Chinese characters, looking like transcripts from the sides of a tea chest. With these, for obvious reasons, the readers of the *Edinburgh Medical Journal* will excuse me from intermeddling.

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## Part Second.

### REVIEWS.

*The Insane in the United States and Canada.* By D. HACK TUKE, M.D., LL.D., etc. London: H. K. Lewis: 1885.

In the autumn of last year Dr Hack Tuke, in company with Dr Baker of the York Retreat, paid a visit to the United States and Canada. During the course of his travels he naturally gave attention to the condition of the insane, fell much into the company of physicians who have to do with insanity, and paid longer or shorter visits to 40 asylums. The results of his observations are stated in the volume under review, an octavo of 270 pages. The first chapter, on "Early Lunacy Practice in America," is principally taken up with an account of Benjamin Rush, "the American Fothergill," a learned and sagacious physician whose ideas on the subject of insanity were vitiated by the errors of the times. The second chapter is also in part historical, dealing with "The Provision for the Insane in the United States from 1752 to 1876." Chapter III. treats of "The Present Condition of the Insane in the States," and in Chapter IV. we have short descriptions of the principal asylums visited.