

unless a tendency to exhaustion exhibit itself, or loss of flesh occur, or the strength of the patient appear inadequate. The bromides and cerebral sedatives will be found the most useful medicines should the movements become much increased or pass into violence.

(<sup>1</sup>) Paper read before the Salisbury Division of the British Medical Association on May 19th, 1909.

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*Some Suggestions as Regards the Origin of Modern Psychiatric Ideas, together with a Note of some Cases of Mania apparently due to Microbic Infection.*  
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To a gathering of physicians, each of whom is actively engaged in the treatment of insanity, it would be both impertinent and needless for me to enlarge upon the present-day position of our knowledge of clinical psychiatry. As you are aware, each new discovery in the laboratory of medical science has been seized upon, elaborated, and applied to the treatment of mental diseases or considered in connection with it. Unfortunately the laboratory workers exercise only too fully the ancient prerogative of doctors to differ, and their observations and the results of their researches are thus vitiated, and further research rendered all the more difficult and needful. If the dawn and full daylight of bacteriological science have impressed us with the all-importance to mankind of the infinitely little, may I be pardoned for stating that at the present time the importance of securing more unanimity of opinion amongst its competent research workers is infinitely great.

Studies of the hypothetical causation of insanity, metaphysical speculations with far-resounding phrases used in the description of mental states and suppositious entities of disease, have resulted often in practical nothingness. Many of the ardent classifiers and metaphysical writers on insanity have gone down to posterity as those described in the oft-quoted words of Lord Beaconsfield, "as mere unsophisticated metaphysicians inebriated by the exuberance of their own verbosity."

In the history of the world's literature it is abundantly

noticeable that old ideas reappear from time to time, and old conceptions of the causation of insanity are to-day dished up to us as something very new and startling. In this connection I think none present will refuse to admit that the provision of employments and useful occupations for the insane, the treatment of insanity by the administration of organic extracts, and the discovery of the *role* played by bacterial and bio-chemical toxins in the production of mental disease, must chiefly mark the advance in the curative treatment of insanity for the past decade. I shall hope to show you that some if not all of those ideas and conceptions of the causation and treatment of insanity were present to the mind of one who lived nearly two centuries ago, and whose master mind saw more clearly and deeply into the depths of human nature, its motives, vanities, and defects, than mortal man has probably ever done before or since. In our search after the origin of latter-day ideas as regards the insane, let us take up Swift's immortal *Tale of a Tub*; here we see written large this grave proposal, "an opportunity which he says I have long sought, for recommending to Sir E. Seymour, Sir C. Musgrave, Sir John Bowls, John Howe, Esq., and other patriots concerned," persons whom we may presume were of the status and possessed of those endowments and qualifications which would to-day be considered requisite in a Royal Commissioner, say, of the Feeble-Minded, "that they would move to bring in a Bill for appointing Commissioners to inspect into Bedlam and the parts adjacent, who shall be empowered to send for persons, papers, and records, to examine into the merits and qualifications of every student and professor" (*viz.*, the patients in Bedlam and the parts adjacent) "to observe with utmost exactness their several dispositions and behaviour, by which means duly distinguishing and adapting their talents they might produce admirable instruments for the several offices in a State civil and military, proceeding to such methods as I shall here humbly propose."

"If any student (in Bedlam) be seen tearing his straw piecemeal, biting his grate, foaming at the mouth, swearing and blaspheming, throwing his pisspot in the spectators faces, let the Right Worshipful the Commissioners of Inspection give him a regiment of dragoons, and send him into Flanders with the *rest*."

"Is another eternally talking, spluttering, gasping, bawling

in a sound without period or article. What wonderful talents are here misapplied. Let him be furnished immediately with a green bag and papers and his cab fare, and away with him " to the Law Courts. You will find another mentioned in *The Tale*, " gravely taking the dimensions of his kennel, a person of foresight and insight, although kept quiet in the dark, he walks duly in one place, entreats your penny with due gravity and ceremony, talks much of hard times and taxes, bars up the wooden windows of his cell constantly at 8 o'clock. Dreams of fires and shop-lifters and court customers and privileged places. Now what a figure would all these acquirements amount to if the owner were sent into the city among his brethren."

Describing a mincing, pretentious person, Swift says: " Behold the fourth is much and deep in conversation with himself, biting his thumbs at proper junctures with countenance chequered with business and design, and excellent in the art of whispering nothing, a huge idolater of monosyllables and procrastination, so ready to give his word to everybody that he never keeps it, one that has forgot the common meaning of words, but an admirable retainer of the sound. What a complete system of court skill is here described in every branch of it, and utterly lost with wrong application." Here we have the prototype of our modern ideas for providing our patients with suitable occupations. To-day we don't send our patients " into Flanders with the rest," but we hear of sending them to South Africa to ostrich farm, or to grow tomatoes, or dig up fortunes from the ground of the world's wildernesses, and thereby remove them " from Bedlam and the parts adjacent," or again among *their brethren* in the city. A modern Royal Commissioner could advise no more fit or better system of boarding out. If we look for a forecast of our present-day doctrine of internal secretion and the therapeutics which are based upon it, the writer of *The Tale* here again has forestalled us in his *Digression concerning Madness*. He first points out how mental states may be induced by disordered internal secretion, and instances the conduct of two Kings of France, Henry the Great and Louis Quatorze. At the risk of wearying you I shall quote his words:

" A certain great prince (Henry IV of France) raised a mighty Army, filled his coffers with infinite treasures, provided

an invincible fleet, and all this without giving the least part of his design to his greatest Ministers or his nearest favourites. Immediately the whole world was alarmed, the neighbouring Crowns in trembling expectation towards what point the storm should burst, the small politicians everywhere forming profound conjectures. Some believed he had laid a scheme for a universal monarchy; others, after much insight, determined the matter to be a project for pulling down the Pope and setting up the reformed religion, which had once been his own. Some, again, of deeper sagacity, sent him into Asia to subdue the Turk and recover Palestine. In the midst of all these projects and preparations a certain State surgeon, gathering the nature of the disease by these symptoms, attempted a cure, and at one blow broke the bag, and out flew the vapour. Now, is the reader curious to learn from whence this vapour took its rise which had so long set the nations at a gaze? What secret wheel, what hidden spring, could put in motion so wonderful an engine?"

I have recently read that no man can tell whether his mental state in any one day is more affected by the conditions of the secretion of his liver, his thyroid, his pituitary body or of his generative organs. For we can assume that each and all of our glandular structures can affect our reason and normal mentalisation by the character and quantity of their secretion entering the circulation. Lastly, and more connected with the title of this communication, which hitherto you doubtless think has little to do with its matter, is the case of the toxic or bacteriological causation of morbid and unusual mental trouble also referred to by Swift, who, reading his own *Tale of a Tub* in late years and when in failing health, exclaimed: "My God, what a genius I had when I wrote that book." Referring to Louis Quatorze, he says: "The other instance is what I have read somewhere of a mighty king who for the space of thirty years amused himself to take and lose towns, beat armies and be beaten, drive princes out of their dominions, fright children from their bread and butter, burn, lay waste, plunder, dragoon, massacre, subject stranger, friend and foe. It is recorded that the philosophers of each country were in grave dispute upon causes natural, moral and political, to find out where they should assign an original solution of this phenomenon. At last the vapour or spirit" (which we now would call the bacillus

or producer of the toxæmia) "which animated the hero's brain being in perpetual circulation seized upon that region of the human body so renowned for furnishing the 'Western civet,' or *Zibeta occidentalis*" (*viz.*, the gluteal regions) "and gathering there into a tumour, left the rest of the world for a time in peace. Of such mighty consequence it is where these exhalations fix and of so little from whence they proceed, the same spirits" (or shall we say toxins) "which in their superior progress would conquer a kingdom, descending upon the anus concluded in a fistula"!

Here we have the cure of mental morbidity by the occurrence or production of an abscess described, and Dr. Lewis Bruce's researches and ideas seem but as the full expression and explanation of the natural mode of remedying morbid mentalisation, which was thought of by Swift when George the Second reigned. If one looks for a bacteriological cause for insanity, we find that recent investigators hold strongly to this view. In Scotland we have Dr. Ford-Robertson introducing us to his *Bacillus paralyticus longus* and *brevis* and his serum therapy based upon the conception that these diphtheroid bacilli produce general paralysis of the insane. Dr. Mott's views of the specific origin of general paralysis seem to be strengthened by recent investigation and experiments with the *Spirochæta pallida*. Unfortunately our old remedy for syphilis, mercury, strange to say, produces no result, even if administered (as I saw recently in a case so treated) in the early stages of the disease when acute mania was the only symptom, and before any of the paralytic or ocular symptoms were manifest. Whether the spirochætes are bacilli or parasites is still unknown, and with the discovery of their life-history we must look for advancement in the treatment of progressive dementia. Several cases of mania which I have seen in recent years presented symptoms which point strongly to a bacillary origin. Bianchi, of Naples, has isolated a bacillus and also the *Staphylococcus aureus* and streptococci and micrococci from cases of mania, and believes some of these bacteria to be pathognomonic. His observations have been confirmed by Kalzowsky and a number of Italian observers.

In the present state of bacteriological technique, with all its difficulty and exposure to error from accidental and undesired infection, one can hardly be expected to form very concrete

opinions. I have, however, seen many cases in which a bacillary origin seemed to be fairly clearly indicated, and regret that so few of us in this country study this branch of research in connection with mental disease.

In the cases of mania to which I attribute a bacillary cause, all were of sudden and apparently of otherwise causeless origin. All occurred in quite sober living people, in whose lives there was little of excitement. They had never been insane before, and were regarded by the members of their family as perfectly well in bodily and mental health until the startling outbreak of the maniacal attack. Time will not permit me to refer to all of these cases, but I shall mention three :

Firstly, a lady, æt. 40, unmarried, of a very rational and quiet disposition, living a quiet life in the country, suddenly, with no apparent cause, became violent to those about her. Promptly removed to a private hospital, she tore the wall-paper off her room, pulled down the electric-light fittings, and bored great holes in the walls. She was admitted to St. Patrick's Hospital on September 19th, 1908, in a condition of acute delirious mania. Her feet were swollen, her temperature raised, no sugar or albumen was present in the urine ; she vomited frequently, and her heart was dilated, with quick and rapid action. On October 1st I had her blood examined for the first time. A staphylococcus was obtained, but was considered by the pathologist as possibly due to a skin infection.

Red corpuscles 5,000,000 per c.mm., leucocytes 12,000 per c.mm. ; films showed no abnormal corpuscles. Polymorphs 75 *per cent.*, lymphocytes 2 *per cent.*, eosinophiles 4 *per cent.* ; a slight polymorphonuclear leucocytosis.

The patient developed an inflammatory swelling in the parotid region, which did not suppurate. This disappeared on October 14th. Her mental state was one of noisy excitement, shouting and laughing, and very incoherent. On December 5th she was much improved and able to do needlework and talk rationally, and ate and slept well.

On December 20th her blood was again examined and a slight leucocytosis was observed.

Although most careful observations were made no micro-organisms could be obtained from the blood, and this is interesting, because Bianchi notes that organisms are found in the acute

stages only of the disease and disappear in the later stages, exactly the converse of what we could expect to find if the bacteria were present as a result of the lowering of the vitality of the patient. In patients dying of the exhaustion of acute mania organisms have not been observed. This patient made a good recovery and was discharged on January 15th. Her case is of interest because staphylococci were found in the acute stage of her maniacal seizure and an accompanying leucocytosis, which disappeared gradually as she progressed towards recovery.

The second case is in many points similar to the first :

An unmarried lady, æt. 35, also leading a quiet, interested life in the country, was suddenly seized with acute mania ; admitted to St. Patrick's Hospital January 9th, 1909, very noisy and restless. She required the padded room at night, and she was constantly throwing herself about and tearing her bedding and clothes. Temperature normal. Full doses of sedatives failed to produce any sleep on one or two occasions. Her blood was examined on January 24th, when she was a little quieter, and slight leucocytosis was manifest.

On January 20th an abscess formed on the dorsum of her hand, and on the same day the maniacal symptoms disappeared and did not again recur, and the patient was discharged on March 3rd. Her time of leaving the hospital was delayed by the appearance of a small abscess on her heel, and a purulent discharge also appeared from her nostrils. Iron and arsenic were administered, and these symptoms entirely disappeared before her leaving. I regard this patient as having suffered from an attack of acute toxæmic insanity of bacterial origin.

I have had, for some years past, a lady patient under treatment on and off for attacks of acute mania. Her first attack was peculiarly sudden. At its onset she rushed out of bed into the street in her night-gown and was arrested and conveyed by the police to the station, they believing she was drunk. Admitted to the hospital she was acutely maniacal and difficult to manage. Although a lady of middle age and of sedate appearance when well, she spent her days in constantly dancing and skipping and shouting, and remained in this state for some weeks. An abscess formed upon her heel, partly, I think, due to her Terpsichorean antics, and almost immediately she became sane and collected. Having no friends



who were immediately willing to receive her again into their homes she remained for some time in the hospital before arrangements could be made for discharge, and she was sent to our country branch. There an examination was made of her blood and a very marked leucopenia was shown to exist. I based my opinion upon this that her recovery would not be permanent, and she shortly broke down again and was readmitted. This second attack was due to her physiological defences having broken down, and an old ulcer on her leg, which had recurred whilst she was away, being healed up, she rapidly got well and was again discharged.

I have little doubt that the bacterial origin of these sudden and apparently otherwise causeless attacks of acute mania will be clearly established within the next decade.

In the only case which I have had an opportunity of examining *post-mortem* (within forty-eight hours of the onset of her attack she burned herself to death in her own bedroom). I found an immense leucocytosis evident in both the meninges and cerebral cortex, and arranged in whorls round the cortical capillaries were quantities of micrococci. I regret no cultures were attempted or any blood examination made during life.

#### DISCUSSION,

At the meeting of the Irish Division held at Farnham House, April, 1909.

THE HON. SECRETARY alluded to symptoms suggestive of toxic influences in cases where insanity occurred as a morbid development of a patient's natural disposition, and where, therefore, the intoxication seemed more likely to have been the effect than the cause. Some time ago a German authority had published cases in which general paralysis had taken on a "galloping" character after a course of mercury. He wished to know whether Dr. Leeper had had any such experience.

THE CHAIRMAN remarked that it was difficult to understand how the blood-state could be so changed by the determination of the infection to a local focus as to bring the mental attack to an end.

Dr. RAINSFORD quoted the opinion of Dr. H. T. Bewley that if a case benefited by the administration of mercury it was one, not of general paralysis, but of syphilitic dementia. He himself, however, had seen a case of general paralysis which for six months had derived benefit from mercury.

Dr. LEEPER, replying, said that he had thought that treatment of general paralysis by mercurial inunction did harm, and he had given it up. He was unable to explain the sudden recovery after formation of an abscess.