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PART 1.—ORIGINAL ARTICLES.

Presidential Address, delivered at the Royal College of Physicians, London, on Friday, July 26th, 1878. By J. CRICHTON-BROWNE, M.D., F.R.S.E., Lord Chancellor's Visitor.

GENTLEMEN,—On taking formal possession of this chair, to which your generosity has called me, which confers honour on its occupant because it has been tenanted by a succession of able and distinguished men, and which is to me especially venerable, because my father once filled it, I shall, I believe, be conforming to excellent precedents if I begin by passing in rapid review before you the principal occurrences of the last twelvemonths, affecting the interests of the Medico-Psychological Association.

And in doing this I have to remind you in the first place, that since our last annual gathering one of our distinguished honorary members and a former occupant of this chair, has been removed by death. I allude to Sir James Coxe, Commissioner in Lunacy for Scotland, who presided over the meeting of this Association in 1872 with great dignity and urbanity, who delivered to it a thoughtful address, and who entertained it in a manner not unworthy of the hospitable capital of a hospitable country. The copyright of a life lasts for more than seven years after it is finished, and until that has expired—until all private privileges are extinguished and petty prejudices have passed away—it is too soon to estimate its real and permanent value. Only then can we say whether the work accomplished in it was distinctive and truly noble, or trivial and base, or of that useful and indispensable, but common sort that is performed by the bulk of mankind. The function of criticism, however, is not deferred until the time for full and just insight arrives. Even while tears are falling its voice is heard appraising the worth of the scarce-

ended drama, and striving, as best it may, in haste and perplexity, to anticipate the judgment of a calm and lucid future. This immediate and partial biographical review is all that is yet possible to us in the case of Sir James Coxe, and I think its unmistakable purport is, that he was an able and conscientious man, who performed many useful labours in the course of an eminently wholesome and prosperous existence, and who has left enduring traces of himself on that department of public affairs with which he was connected.

From the commencement of his career, Sir James Coxe interested himself in insanity. During the earlier stages of his professional training, he enjoyed no opportunities of coming into contact with the cloistered insane, nor of observing the modes of treatment then resorted to, as lunatic asylums were not in those days open to students, and were unprovided with medical assistants, but this disadvantage was, to a great extent, compensated by his having acquired from his relatives, George and Andrew Combe, a thorough knowledge of phrenology, which—not then fallen on evil days of charlatanry, and into the evil companionship of mesmerism—encouraged the accurate observation of mental states, accentuated the relations subsisting between these and states of the nervous system, and had even some curious glimpses of foresight into the revelations of modern physiology. He saw the phrenological method of inquiry applied in cases of insanity and of peculiar turpitude in the communities of lunatics and criminals that he visited during a long sojourn on the Continent, and the influence of the information thus obtained, co-operating with the natural bent of a comprehensive but unimaginative mind, may be discerned in all his subsequent public and official acts. He was more a legist than a physician. He was a statistician rather than a scientist. He preferred his own social panacea to all the powers of therapeutics.

It is not for me to express here any opinion as to the projects which were foreshadowed and developed in the Reports of the Scotch Board of Lunacy, for which Sir James Coxe was mainly responsible; but this I may say, that however much we may differ from the author of these suggestions as to their practicability and the benefits likely to accrue from them, we are bound to accept them as the expressions of a vigorous and straightforward intellect, and as dictated alike by sympathy with the mentally afflicted, and a patriotic regard for the well-being of the community at large. It is

incontestible that a great improvement has taken place in the condition of the insane in Scotland, since the Report of the Royal Commission of 1856-57—of which Sir James Coxe was an active member, and for his services on which he received the honour of knighthood—disclosed abuses in some private asylums and in the homes of single cases of a very flagrant character. And whatever improvement has been secured must be ascribed, to a considerable degree, to his exertions. His name will be chiefly associated with the system of boarding-out demented and docile patients, which he so persistently defended, with the creation of lunatic wards, or small simply constructed asylums in connection with workhouses, and with the arrangements for the admission of voluntary patients, and of urgent cases on a single certificate of emergency into asylums. And as long as those who came into actual contact with him survive, his name will also be associated with some pleasant personal traits. Under a somewhat stolid exterior, and an almost bashful demeanour, there was in Sir James Coxe a large fund of mother wit, from which largesses of humour and irony were bountifully distributed amongst his friends. His modern Attic salt will long retain its savour, and be potent to call up a reminiscent smile.

Almost simultaneously with the death of Sir James Coxe, occurred that of Dr. Gardiner Hill, who took an early, and earnest part in the humane movement for the abolition of mechanical restraint in the management of the insane. While still rich in the plasticity of youth, his experience in the Lincoln Asylum impressed on him the then unfashionable belief that strait-waistcoats are not essential elements in the paraphernalia of an asylum, and he had the courage to place himself in the front of what proved a successful revolt against ancient usage, and senseless repression. For the courage which he thus displayed, his name is deserving of respectful remembrance.

While no other gaps in our ranks, beyond those just mentioned, have to be deplored, we have to note the withdrawal from the more active duties of official life, of one who has long commanded confidence and esteem as a Commissioner in Lunacy. I trust the day is far distant when there may be propriety in pronouncing an eulogium upon Mr. Wilkes, but I think this opportunity should not be lost of assuring him that he carries with him into his comparative retirement the high regard and good wishes of those who have been, per-

haps, the most competent critics of his public career. His gifts and attainments have enabled him to do the State some service in his time, not only as a Commissioner in England for a quarter of a century, but as a special Royal Commissioner in Ireland, and as the originator of the Coton Hill Asylum, and I think I may safely assert that had his lot been cast in almost any department of the public service, other than that in which he has so assiduously toiled, his merits would have received some titular acknowledgment.

To name the successor of Mr. Wilkes at the Board of Lunacy, is to compliment the discernment of this Association, which five years ago appointed Dr. Rhys Williams to one of its most important and onerous offices, in which his tact and affability have been abundantly shown forth. His promotion to the elevated position which he now occupies, and for which by experience and temperament he is well fitted, has given wide-spread satisfaction, which you have to-day reflected by electing him an honorary member of your body.

Turning from personal to public events, as affecting this Association, I have to remark that the most momentous of these, happening in the past year, has been the publication of the Report of the Select Committee of the House of Commons on the Lunacy Law, which procured during last Session of Parliament so copious and variegated a mass of evidence. And to every member of this Association, who has any pride in his calling, the character of that Report must be a subject of congratulation. After a protracted inquiry and the freest reception of evidence, after patient sifting of conflicting statements and mature deliberation, the Committee conclude that the allegations of *mala fides*, or of the serious abuses brought before them, were not substantiated. The constitution of the committee, and the careful way in which their labours were conducted, ought to give great weight to their verdict, which really amounts to this, that the security afforded against violations of personal liberty by our present lunacy law is practically complete. True the Committee allege that the present system is not free from risks, and suggest some additional safeguards, but the significant fact remains that they did not find out and establish a single case of wrongful deprivation of liberty. From 1859 to 1875, 185,000 persons were shut up in Lunatic Asylums in England and Wales, and it is certainly remarkable that not one of them should have come forward to tell a plain, unvarnished, and trustworthy tale of kidnapping and false imprisonment. Innocent persons are

occasionally convicted of crime, and it might well be, without grave discredit to our lunacy law, that sane persons were occasionally mistaken for lunatics; especially when the boundary line between soundness and unsoundness of mind is so ill defined. It seems, however, that those charged with the administration of the law have kept well within this boundary line; and, on the whole, it is questionable whether, where a human instrumentality is concerned, a nearer approach to perfection than that which our existing lunacy law offers with reference to personal liberty is to be attained, and whether further precautions against risks, which no one runs, would not, in obviating problematic dangers, introduce some very positive disadvantages.

The limited nature of the reference made to the Committee prevented them from dealing in their Report with the multifarious topics, not directly connected with personal liberty, which were brought under their notice by a cloud of witnesses. Although these, however, are not summed up in the Report, they are recorded in the volume of evidence taken, and form, perhaps, the most valuable product of the labours of the Committee. They have been already subjected to analysis in many quarters, and numerous recommendations for the amendment, reconstruction, and total overthrow of the law have been founded upon them. And there is no doubt that they will furnish, for years to come, justifications for all kinds of preposterous proposals, as well as hints for many much needed and judicious reforms. We are agreed, I believe, that the law of lunacy, while affording a satisfactory guarantee for the inviolability of personal liberty, is capable of improvement in several other directions; nay, I may say, that we are anxious for some legislative changes which will strengthen our hands in contributing to the welfare of the insane. Many of the improvements and legislative changes which we desire are indicated in the evidence taken by the Committee, which, after subsidence and filtration, will yield a solid residue of wisdom. But other improvements and changes, the want of which is generally recognised, are not adverted to; while as to several moot questions, the proof adduced is singularly inconclusive.

A cursory glance at the volume of evidence serves to convince that witnesses were examined who could well have been spared, that witnesses were not examined who could have given profitable information, and the witnesses who were examined differed exceedingly in the degree in which they

confined themselves to the special points before the Committee. As was inevitable the inquiry enlarged in all its dimensions as it rolled on, and so, towards its close, witnesses were found giving prominence to subjects which had not been broached in its earlier stages. Out of these defects in the evidence, which were unavoidable, considering the mode in which the work of a Select Committee is carried on, has already arisen the demand for a Royal Commission to institute a thorough and exhaustive inquiry into lunacy in all its bearings. It is probable that such a Commission would clear up obscurities, and afford some guidance and enlightenment, and yet I fain hope that the demand for it will not be listened to; at least, not for many years to come. It seems to me that we have had enough of inquiry and investigation and agitation, and that what is wanted now, in our department, is an era of tranquillity, time and composure, in which to develop our internal capacities and resources, and in which to utilise the information that we already possess. The arts of peace do not flourish when the sounds of war are in the air, and the attitude of self-defence is incompatible with steady progress. And our speciality has been in the din of battle from its beginning; it has had to protect itself against assailants on all hands. Beset by jealousy and suspicion from without, and perturbed by internecine feuds, it has had to fight out the great battles of non-restraint, of moral treatment, and of medical supremacy, and has won memorable victories for humanity, even in spite of humanity itself. From its prolonged contests it has, doubtless, derived some benefits. Its youthful sinews have been strengthened, its frame-work has been more firmly knit together in its many encounters, but it is now of mature age, and the work that awaits it cannot be well performed in a suit of armour, and while harassing attacks have to be repelled. In the interests of the sane and insane of society, and of science, it is desirable that our asylums and their officers should be exempted for a time from vexatious interference; not that they may sink into negligence and dull routine, but that, in quiet earnestness, they may expend their energies in domestic improvement, in the investigation of mental and nervous disease, and in perfecting treatment. Without further discussion, certain reforms may be effected, and that larger measure of reform which ought, perhaps, to accompany the codification of our lunacy laws, will not lose anything in solidity and completeness by being postponed for a season, during which a solution

is being sought of a series of problems connected with the care of the insane. The machinery which exists for the supervision and control of asylums has been pronounced fairly adequate, and further inquiry and agitation are not likely to remove the distrust with which such institutions will always, in some quarters, be regarded. It is hopeless to attempt by any amount of inquiry to pacify half-cured lunatics, or crack-brained enthusiasts, to conciliate the irreconcilables who must have a grievance, or to tranquillise the busy-bodies who think themselves philanthropists. Life is too short for the education of idiots, and perpetually to elucidate and explain where conviction is impossible, is only to pander to folly and foster prejudice.

Holding, as I do, that to be let alone is what our asylums in the meantime chiefly need, I cannot but regret the proposal which has been made during the present Session of Parliament to introduce a new element into the governing bodies of our public asylums. These institutions, it must be admitted, are, as a rule, fulfilling efficiently the purposes for which they were called into existence. They are improving year by year in structure, organisation, and discipline. The ratepayers are satisfied with their management. There is no popular outcry for a change in their constitution. In the asylums of different counties there are not to be noted those disparities in the cost of maintenance which, in the case of prisons, were so curious and indefensible. It is not mere insular conceit to say of them, that, with all their faults and shortcomings, they are a pattern to Europe and the world.

Why, then, we may ask, are public asylums to be disturbed in their beneficent career? Why try upon them an experiment which cannot ameliorate their condition, which it is said will be innocuous, but which may prove highly injurious? To give a direct representative control to the ratepayers over expenditure, and to confer uniformity on county administration, are laudable designs, but the advantages which are to accrue from including lunatic asylums in the new scheme are, I think, theoretical, and are more than counter-balanced by the drawbacks that must attend that step. No one maintains that under the new arrangement asylums will be more cheaply conducted than they have hitherto been, or will bestow increased benefits upon the insane poor; while most well-informed persons are persuaded that the addition of poor law guardians to their Visiting Committees will enhance the difficulties under which their officers labour.

The effects of such an addition will, doubtless, vary much in different districts of the country, but it is to be feared that its general tendency will be to drag down asylums to the workhouse level, and in some instances to substitute for the wise economy which is now characteristic of their management, a stupid parsimony, which commonly goes hand-in-hand with foolish extravagance. It is to be apprehended that the presence of Poor Law Guardians on Visiting Committees will render Lunatic Asylum service more distasteful than it is now to cultivated medical men, so that the tone and status of those engaged in this service will undergo gradual deterioration, a deterioration much to be lamented, for we all know how every asylum takes its complexion from its medical head, and how much the comfort and happiness of the inmates depend on his refinement of feeling.

Let us hope, then, that when the County Government Bill is re-introduced next Session, or at some still more remote period, asylums will be found to have been excluded from its operation. If modifications in their system of management be deemed essential, the correct policy would appear to be to deal with them in a manner analogous to that in which prisons have been dealt with, and in the case of asylums the process would be a comparatively simple one, as a Board of Commissioners already exists, which, extended and fortified, could readily assume whatever authority and duty it might be judged expedient to centralise, as the anomalies and inequalities in our asylum system, requiring correction, are really few and insignificant. But if again it should be decided that the control of County Financial Boards must stretch over asylums, and that elected members of these Boards must take part in their general as well as in their fiscal management, then, I think, endeavours should be made to secure the adoption of some such plan as that sketched out in the "Times" by my distinguished colleague, Dr. Lockhart Robertson, by which asylum medical officers would become servants of the Crown, and be ensured against some of the inconveniences with which they are now threatened. Independence of action, fixity of tenure, and security of pension, are what asylum medical officers are entitled to ask, not only with a view to their own comfort, but with an eye to the welfare of their patients and the claims of science.

And the latter consideration, the claims of science, ought not certainly to be lost sight of in any advocacy of the interests of our specialty that may hereafter be necessary, for

it is tolerably certain that the title of our specialty to public deference and acknowledgment must be founded henceforth mainly on its scientific character. With its past history science mingles, perhaps, less than we could wish. It is not implied that science has ever been ignored in lunatic asylums since they passed under medical care, nor that fruitful scientific researches have not been pursued in them; but it is argued that more engrossing occupations have hustled science into a subordinate place, and that non-scientific methods of studying insanity have prevailed. While the reign of terror was being swept away, and the dominion of kindness vindicated; while a new system of asylum polity was being elaborated; while furnishing, clothing, farming, the education of a staff of nurses and attendants, decorative art, and sanitary requirements, absorbed in turn the attention of asylum medical officers; and while they felt that their deserts would be measured by their achievements in these spheres of activity, rather than by any severe interrogation of nature that they might undertake, it was scarcely to be expected that science would flourish in asylums. And when again mental disease was not subjected to sober watching, but was contemplated from a metaphysical point of view, and in the light of preconceived notions, it was not to be anticipated that science would thrive in asylums. Without blaming our predecessors, nay, honouring them for what they accomplished in their sustained crusade against cruelty, ignorance, and prepossession, we are still bound to note that they made but a tardy scientific advance, and imparted to their specialty but a feeble scientific impulse. And hence it is that we are still suffering from more or less scientific lethargy, and have to recognise the somewhat chagrining truth, that we owe none of the great advances made recently in our knowledge of the nervous system in health and disease to members of our own specialty. The spirit of scientific inquiry is awakened; it is perceived that asylum medical officers can no longer content themselves as a body with successful administration of the establishments under their care, but that they rest under an obligation to extend our acquaintance with insanity, and to multiply and give precision to our means of dealing with it. Here and there most praiseworthy and fruitful microscopical investigations, clinical observations, and therapeutical experiments are being carried on, but we are still far from having reached that general diffusion of scientific work throughout our asylums which should be

aimed at, while in one respect it would almost seem that we have been retrograding of late. Under science, of course, is included psychology, or the study of the laws of the instinctive manifestation, and conscious intelligence, not only in man, but in all living beings, and it is in this branch of science that we have been, perhaps, falling back in our department in recent years. It must, I fear, on examination, be admitted that, while in psychology and philosophy generally, our countrymen are leading the van in Europe, in that particular branch of psychology that is conversant with morbid, mental states little or no work is being done in Great Britain. In the literature of insanity of to-day there is no attempt at mental analysis, and only the most perfunctory attempt at a classification of the expressions and products of the diseased mind. Half-a-dozen phrases, such as 'excitement,' 'incoherence,' and 'depression,' comprise our whole psychology, and even these are sometimes employed in a slipshod fashion. Beyond the careful compilations of Dr. Lauder Lindsay, relating to mind as exhibited in the lower animals, the ingenious essays of Dr. Ireland on some old philosophical controversies, and the observations of Dr. Nicolson upon criminal mental types, I know of no contributions since the publication of Maudsley's classical work, made by compeers of our own, to the matter of psychology, in relation either to what forms for us its central area, the phases of insanity, or to those circumferential planes that still lie within our sphere of obligation, and include comparative psychology, mental evolution, language, the characteristics of those born devoid of particular senses, and the manners and customs of races. In those latter regions of psychological inquiry, which are in such close contact with our own field, the work is again being carried on by those who are unconnected with us, by Herbert Spencer, Lewes and Bain, whose labours have been so discursive; by Darwin, who has given us his admirable studies of emotion, and his biographical notes of a baby; by Mr Francis Galton, who has so perspicuously traced out the hereditary transmission of mental traits, and who is now busied with inquiries of superlative importance into the time occupied in mental processes; by Mr. Romanes, who is diligently digging up the radicles of mind; by Mr Grant Allen, who is delineating the foundations of our æsthetical perceptions and feelings; and by others, who, without the pressing motives that ought to drive us into such researches, are undertaking them from the mere love of the exploit.

And in all this there is some decadence to be regretted, for in the older writers on insanity there are to be found, besides mere metaphysical subtleties and empty speculations, some acute observations on mental structure and action, on the objective lines of research, and an attempt at any rate at psychological inquiry. And we may depend upon it that if such inquiry is now neglected, no genuine progress is possible for us, for it is on a combination, nay, on the fusion of the two great elements recognised in the name of this Association—the medical and the psychological—that our hopes should be fixed. These two must not be hyphenated but incorporated. It is necessary that we should know the intimate structure of the brain and the pathological changes to which its tissues are liable, but we cannot rest in this knowledge, for to essay to understand mental processes by the microscopic appearances of dead brain-cells, is infinitely more absurd than it would be to endeavour to explain a somersault by the aspects of an ultimate sarcoous element—the distance between neurility and thought being vastly greater than that between contractility and an athletic feat. Then, on the other hand, psychological work is necessary, but not all-sufficient. It is necessary that we should know the deviations from healthy mental states in which insanity consists, the order of their disorder, their origin and transmutations; but we cannot stop here, for we might as well try to excogitate the liver from the chemical analysis of bile, as to comprehend brain states by a study of mental variations alone. It is not on one nor the other, but on both of these lines of study that we must advance, if we are to attain to greater precision and success in the diagnosis, prognosis and treatment of insanity. And not even to both can we trust as long as they merely run parallel with each other. It is when they converge and rush together that a spark of genuine illumination is certain. The great value of Ferriers' labours consists, I believe, in their having opened up for us a pathway to a concrete mental pathology, which will ultimately lead to a position where we shall be able to find the subjective equivalents of morbid appearances or, conversely, the anatomical substrata of subjective states.

Now, I must not be taken to argue, that those psychological inquiries and scientific researches, by which I set so much store, are of binding obligation upon all asylum medical officers. It is not given to every one to be an original investigator, and the daily drudgery of life—the trivial round,

the common task'—has a priority of call upon each of us. But my thesis is, that into this daily drudgery more science should be infused than has hitherto been done, that an increasing number of volunteers should transcend it, and push their reconnaissances further than has yet been attempted to the territory of darkness and doubt, and that this Association, representing the culture and highest aims of our department, should, by all means in its power, promote scientific research. It is clearly incumbent upon all asylum medical officers to keep abreast of general medical science, and to give their patients the benefit of every addition that is made to the resources of the healing art; and it is clearly incumbent upon our department as a whole to maintain a rate of scientific progress commensurate with the opportunities which it enjoys, and not notoriously sluggish, when contrasted with the pace of other sections of medicine. But to do this requires now-a-days all the vigour that we can command, and every incitement to scientific work that can be brought into play, for the boundaries of scientific medicine are shifting daily, and those of disease are not stationary. We cannot rest and be thankful on our scientific road, for as surely as medical knowledge is maturing, so that we are putting away childish things and adopting the weapons of manhood, so surely is disease changing its features and making new encroachments upon health. We must be ever on the alert, for science is fluent, and there is no finality in disease.

These remarks are not intended as a prelude to a demonstration of the encroachments of that particular class of diseases in which we are principally interested. I am not going to parade before you once more the veteran controversy whether insanity is on the increase, a controversy which was indeed somewhat threadbare until it was lately rehabilitated with much industry by Dr. Hack Tuke. I have no desire to traverse again a well-beaten track, but I do wish to haunt its confines so far as to protest against two assumptions that are now very confidently promulgated by those who frequent it. The first of these is that insanity is a fixed quantity, a determinate burden imposed upon us that we can neither lighten nor shake off, but the galling effects of which we may alleviate by dexterous manipulations, and by moving it about from place to place, as when we transfer lunatics from asylums to workhouses, or from workhouses to private dwellings. And the second of these is that insanity is a diminishing quantity, a growth of ignorance that civilisation

is steadily lopping away, an evil that is becoming 'small by degrees and beautifully less,' and that will some day reach the vanishing point. And I take the trouble to protest against these assumptions, because they are not merely harmless fancies, but theories that are apt to paralyse action and encourage scientific indolence.

We are all now-a-days too apt to delude ourselves with a dream of continuous evolution. It is comforting to reflect that while we are taking our ease 'the thoughts of men are widening,' and that without any assistance from us 'an increasing purpose is running through the ages.' Progress is the law, and administrative nihilism is obviously our policy. We cannot influence the issue of the fight for life that is proceeding. Let us look on then with stoical indifference. Let us adopt the creed of a recent writer in a scientific magazine, who might be a caricaturist, but is quite serious when he says, 'I look on all constitutional diseases as the tentative efforts of Nature to stop the propagation of bad protoplasm.' Unhappy, incontinent, bungling Nature, first to give birth to bad protoplasm and then to labour to compass its destruction before it attains to puberty!

But the misfortune is that these lofty and specious notions are subject to serious deductions, and are not practically satisfactory, for in the flowing tide of progress there are innumerable ebbing waves, and it is in the partial rather than in the general movement that mankind is interested. Not only evolution, but involution and dissolution abound around us, and it is with the latter that we as medical men are chiefly concerned. Our first duty is to our patients who do not care much about the triumph of the type, but who are very careful of the single life. Our next duty is to the community of which we form a part, which wishes well to the universe, but is much more solicitous about its own health and prosperity. And in the discharge of our duties we have to oppose evolution, promoting the survival of the unfittest, of weakly and crippled beings. Our benevolence is short-sighted. We relieve suffering wherever we find it, nothing doubting. We have not soared to such cosmopolitan enthusiasm as would make us placidly acquiesce in the destruction of our countrymen, even although the social millennium should be thereby hastened in its advent; and so we toil on exposing, and, as far as may be, abolishing the causes of disease with no faith that evolution will help us. For our studies of evolution do not sanction such a faith.

Myriads of species of plants and animals have become extinct. In every region of the globe there have been a succession of partial civilisations that have been succeeded by periods of barbarism. Some of the savages of to-day are the heirs of higher races that have perished, and our astronomers even look forward to a time when in the course of universal congelation a few wretched snow huts close to the equator will contain the last remnants of our species.

What guarantee, then, have we that it is well with us that our nation will not dwindle and decay long before it is overtaken by geologic calamity? None whatever, save our own watchfulness and virtue. Only by the teachings of science, the lessons of experience, and the monitions of conscience, can we avoid a fate which has overtaken so many splendid empires. There is nothing inherent in our blood to save us. Even in our midst and to-day the ravages of rapid degeneration may be witnessed in certain portions of our population.

'The descendants of the exiles from Ulster,' says an eminent authority, 'who were driven into Sligo, where they have ever since been exposed to two of the great brutalisers—hunger and ignorance—are readily distinguished from their kindred in Meath and other districts, as remarkable for the examples of human deterioration from known cases which they present. Five feet two inches in height, pot-bellied, bow-legged, abortively featured, their clothing a wisp of rags, these spectres of a people that were once well grown, able-bodied, and comely stalk abroad, the apparitions of Irish want and ugliness.'

'The inhabitants of the courts and alleys in the Holborn district,' said the Rev. William Lockart, Roman Catholic Priest, at a recent Government inquiry, 'die much more quickly than one experienced with poor in the country expects. They have no stamina. One has to be careful to be early in administering to them the last rites of religion.' 'In 1,100 of them,' said Dr. Robinson, 'there were sixty deaths in one year. There were two suicides, two sudden deaths, eight deaths from consumption, and nine from fever. The children, as a rule, are born rickety and scrofulous, and suffer from contagious diseases, parasites and ophthalmia.'

These are coarse and glaring instances of the evils wrought by some of the best known factors of degeneration, and innumerable modern instances of a like kind might be quoted. The effects of filth and destitution are patent enough. But there are other more insidious degenerative

agents at work which, as psychological physicians caring for the health of the people, it is our duty to watch very narrowly, and these may be summed up under excessive commotion and tension of the nervous system. Organic forms are being incessantly modified in some way by the external conditions that operate upon them. Vitality is liable to disturbance in direct proportion to the comprehensiveness of the conditions in which it is maintained, and these conditions increase in comprehensiveness as civilisation advances. Every discovery in physical science, every new invention, every freak of fashion, has an effect for good or ill upon the nervous system. The discovery of gas was almost equivalent to a change in the earth's diurnal rotation, as affecting the length of day and night, and must have been followed by corresponding modifications in the periodicities of the nervous system. The invention of railways was to our wealthy classes almost tantamount to a change in the earth's orbital translation round the sun, enabling them to live through two summers in twelve months, and so quickening their vital transitions and nervous activities. The introduction of afternoon tea has, we are assured, aggravated certain neurotic tendencies.

The pressure of modern life falls especially upon the nervous system, and the danger of this pressure lurks perhaps in the suddenness with which its incidence changes. Time is not allowed for the adjustment of inner to outer relations. The whirl of surrounding contingencies is so swift that a perfect correspondence with their successive phases is scarcely attainable. Of course constant adaptation is going on. Progressive differentiation of structure and function keep pace, more or less successfully, with the march of external co-existences and sequences, and with every increment of knowledge and skill there is some addition to the ideagenic and kinetic substrata. But the nervous system cannot, on assuming new responsibilities, discharge itself of old cares and incumbrances. In its textures are inextricably interwoven ancestral wisdom and folly; in its ganglia are imbedded the feelings and instincts of the lower animals, and as it grows its burdens and complexity increase together.

And it is in the increasing complexity of the nervous organization, and in the rapidity of the successive modifications to which it is subjected, that some of the risks of degeneration are to be found. The nervous organization

becomes more unstable as it becomes more complex. 'The nervous tissue of animals,' says Charcot, 'seems much better able than that of man to resist the influence of the diverse causes of irritation and inflammation. All experimenters are aware that even the most serious traumatic lesions of the spinal cord, or of the peripheral nerves do not readily produce in the case of most animals, a myelitis or a neuritis having some duration which could be considered comparable with those developed in man after the very slightest lesions.'

The higher susceptibility to injury of the nerve-tissues in man, as compared with the lower animals, is associated with a higher liability to all kinds of nervous diseases, which are again of all diseases, perhaps, the most hereditary. And their hereditariness may have two sources—it may originate in a molecular *error loci* in the embryo, or in a functional habit acquired in extrauterine life. 'It can be no wonder if, in the infinitely complex movements,' says our greatest living medical philosopher, 'which fulfil the scheme of embryonic development sometimes this or that molecule divides itself not quite normally; sometimes this or that molecule drops ever so little out of line; or sometimes there occurs unduly this or that divergence, or this or that confusion of molecules, and in immeasurably small errors of this sort germinal antecedents may establish themselves for even the most startling malformations which adorn our museums;' and for cerebral abnormalities and faults also, I would add, with their concomitant mental defects and aberrations, which, like supernumerary toes and fingers, are apt to become fixed and appropriated as part of the transmissible type of the animal.

But in the functional activities of the nervous system on the other hand, a special alteration of structure which has not arisen spontaneously out of a natural variation, but has been induced by the incidence and succession of external forces, may be established, and affect the reproductive centres, and cause them to unfold into organisms exhibiting like modifications, and thus resulting in the propagation of nervous disease. Instability of nerve tissue, induced by undue augmentation or perversion of function, becomes a disorder which may be handed on to offspring, as was visibly the case with Brown-Séquard's guinea-pigs, in which the artificially established epilepsy of the parents became constitutional epilepsy in their descen-

dants. And this instability is now manufactured to a very large extent, and is, in all probability, responsible for a wide propagation of nerve disease. The nervous functions are not only subjected to perpetual commotion now-a-days, but to severe strain. The energies of the nerve centres are often ruthlessly overtaxed, and waste so great is produced that it cannot be repaired in the ordinary periods of repose. Hence relaxation and incapacities result, and habitual excess of function passes over into derangement, which may re-appear in children in its identical or some allotropic form, or as that general nervous debility which is almost itself a disease, and which forms so large a part in the 'causation compound' of so many diseases. The studious habits of the cultivated Germans have led to a wide diffusion amongst them of congenital myopia, which is almost unknown in rural populations. Let us take care that our restless habits do not eventuate in still more disastrous consequences.

But habitual excess, or perversion of function of the nerve-centres, may occasion a greatly increased prevalence of disease, without the intervention of hereditary propagation. Mr. Myers has proved that an extraordinary prevalence of heart disease amongst soldiers must be traced to the tightly fitting dress which they have been compelled to wear, and to the mechanical obstruction to the circulation which that creates. Now, is it not reasonable to suppose that changes in habits or modes of life, interfering with the free play of the whole nervous system, and imposing an unaccustomed strain upon certain parts of it, will result in an increase of the disorders to which it is liable? Writers' cramp has been shown to be, in a large proportion of cases, a fatigue disease, due to a painful and tender condition of the nerves of the limb, induced solely by over-work. Is it not tolerably certain that if, from any cause, there should be an increase in the number of persons earning their living by penmanship, there would be an increase in the number of cases of writers' cramp? Nerve tissue is everywhere identical in structure and properties. In the optic discs the ophthalmoscope exhibits to us congestion and œdema as the consequences of over-work of the eye. May we not fairly infer that congestion and œdema of certain areas of the brain are the penalties of over-work of the mind, especially as we know, from actual observation, that local vascular turgescence accompanies every access of functional activity in the cerebrum? And is it not, at least, probable that over-work

of the mind is becoming more common in a thickly populated country, where the strain of competition is ever tightening; where emigration is ever drafting off those portions of the community in whom the physical and animal character predominates, and leaving an ever swelling crowd of keen and tremulous candidates for fortune or bread and butter?

It is not, of course, to be lost sight of that while some causes of nerve disease have become more prevalent and active, others have dwindled, and been circumscribed in their operation. Ague has been drained away, and the brood of maladies which it engendered has almost disappeared. Small-pox has been forestalled by vaccination, and cases illustrating its nervous sequelæ are now rarely met with. But my purpose is not to demonstrate how the balance inclines between the increasing and lessening causes of nerve disease. It is not to argue that nerve diseases are spreading amongst us, but rather to indicate that there is no ground for asserting that they are diminishing in frequency, or are stationary, and to persuade that we must not allow ourselves to be lulled into inactivity by any such flattering assurance, that we must not trust to evolution, but vigilantly watch the pathological horizon, and be ready to bring the forces of science to resist every fresh onslaught of disease.

And it is no imaginary opponent that I am contending with, in endeavouring to establish these positions. With reference to one great group of nervous diseases, the psychoses, we are often cheerfully assured that they are lessening their hold upon us, or that they do not vary in frequency from time to time; and with reference to the whole class of nervous diseases, Dr. Althaus has lately maintained, with great ability, that they constitute a definite fixed quantity that neither waxes nor wanes, and this conclusion he founds upon statistical facts. 'The rate at which diseases of the nervous system,' says Dr. Althaus, 'proves fatal to the population of this country is a steady one, and subject to a definite law, to which there are not any or only apparent exceptions. This rate does not appear to vary perceptibly from time to time.' In support of this proposition, he adduces statistics which show that the number of deaths due to diseases of the nervous system, registered in England and Wales, has maintained, during the last five lustra, nearly the same proportion to the population and to general mortality. From 1847 to 1851, inclusive, 27 persons, and

from 1867 to 1871, inclusive, 28 persons in every 10,000 living, died of nervous diseases, while throughout the 25 years, included between the extremes named, the percentage of deaths from nervous diseases, upon deaths from all causes, varied to a scarcely appreciable extent. Now, it must be admitted that Dr. Althaus' figures, with reference to the mortality from nervous diseases, do exhibit a very curious evenness from year to year, but this becomes itself an element of suspicion, when we find no parallel to it in the results obtained from similar calculations, applied to the mortality from other diseases. The invalidity of these figures need not, however, be rested on the speciousness of their appearance, for an examination of the Registrar-General's Reports, from which they are drawn, speedily reveals many sources of fallacy in connection with them, which have not been altogether overlooked by Dr. Althaus, but to which he does not seem to have attached sufficient importance. In the first place, it is obvious that, as regards nervous diseases, we have no guarantee for that accuracy and uniformity of diagnosis, without which medical statistics are simply misleading. During the period covered by Dr. Althaus' inquiry, an enormous advance has been achieved in medical knowledge—a great improvement has taken place in medical education; and, consequently, in the care and precision with which medical work is carried on throughout the country. No one will question that a general practitioner to-day called upon to certify one hundred cases of death, would classify them in a manner very different from that which would have been adopted by a general practitioner thirty years ago. The headings or groups under which the numerical units had to be arranged being the same in both cases, the distribution of these units under them would vary in the two, in a way that would only become intelligible in the light of the history of medicine. The difference between the two classifications would correspond with a change in medical opinion, and that change with a movement in the direction of more accurate analysis. In the tabulation of to-day, particular diseases with a definite signification would bulk more largely than in the tabulation of thirty years ago; while the vague, general diseases with no very sharp outlines, the cities of refuge for doubtful cases, would be less crowded now than in the older grouping. Old age—which is sufficiently vague as a cause of death—is

represented in the Registrar-General's return for 1888, as responsible for ten per cent. of the whole mortality; while in the same returns for 1872 it stands charged with only five per cent. Now, no one will contend that old age is only half as fatal now as it was forty years ago. The explanation of the disparity in the figures is that much that was formerly included in old age is now distinguished from it, and that many cases that would formerly have swelled this item of mortality are now distributed under other headings. Well, the improved discrimination and insight that have led to this statistical fallacy have also, I believe, become the parents of confusion and misconception in relation to the statistics of nervous diseases. Many of these diseases do not possess the striking and characteristic features which would prevent ambiguity in their nomenclature, and most of them are liable to be interrupted and complicated by diseases of other organs and tissues. And thus it may have come about, that these diseases are now sorted differently from what they formerly were, and that deaths which were at one time ascribed to them are now registered under other orders of causes. It is indisputable that certain obscure cases of cerebral disorganisation, which our predecessors would have called brain disease, are now recognised as of syphilitic origin; and are certified accordingly. And that many deaths in asylums, which in bygone days would have been entered as exhaustion after mania, so finding a place in the Registrar's returns amongst nervous diseases, are now by post-mortem investigation shown to be due to pneumonia, and are hence registered under diseases of the respiratory organs. Then amongst nervous diseases there are some that used to have very hazy boundaries, and that even modern pathology has not sharply marked out, although it has greatly circumscribed them. Convulsions, which in children under five years of age are responsible for more than one-third of the whole mortality from diseases of the nervous system, stood at one time as the wholesale appellation for all sudden and mysterious infantine deaths, but with us the term, although still to some extent a cover for ignorance and indolence, is certainly employed with less impartial catholicity.

Now, if in the instances which have been mentioned, as well as in many others not specified, the progress of medicine has resulted in the registration under other orders of disease, of many deaths which would formerly have been registered under the order of nervous diseases, and, if at the same

time, the number of deaths reported as due to nervous diseases has preserved an undiminished proportion to the general mortality, the conclusion is irresistible that there must have been an increased production of nervous disease to compensate for the withdrawal of the equivocal cases. And this conclusion is strengthened by the reflection that an improvement in treatment has kept pace with the improvement in the diagnosis of disease, and that the employment of new remedies has probably secured a material prolongation of life in some prevalent varieties of nervous disease. But this prolongation ought to be represented by a proportionate diminution in the rate of mortality, and when no such diminution is apparent we are again justified in inferring that the benefits of improved treatment to the community are counterbalanced by a more rapid multiplication of nervous maladies.

The justice of these observations is, I think, vindicated by a scrutiny of the mortality ascribed to some particular nervous diseases in relation to which the causes of error just indicated are less likely to have operated. Epilepsy, for example, is a well-marked disease; it is of protracted duration; its diagnosis is simple; it is not so liable as other nervous affections to be cut short and ousted from its fair representation on the bills of mortality by other diseases, for the incursion of an acute disease in a chronic epileptic is often characterised by an explosion of fits, which cuts short the incipient acute disease, and so ensures the attribution of the death to epilepsy. Well, it is remarkable that the rate of mortality from epilepsy has not been a steady one, but has varied perceptibly from time to time, having, from 1847 to 1862, manifested a very decided upward tendency, which in the years subsequent to 1862—in those years, in fact, in which the bromide of potassium came into general use—underwent a check. Tetanus, again, about which there could not be much mistake, figured in gradually increasing proportion as a cause of mortality from 1838 to 1856, and chorea, also an easily diagnosed malady, has been much more fatal in recent years than it was seven and eight lustra ago.

These observations make it, I think, tolerably certain that Dr. Althaus' allegation that a certain mortality from nervous diseases, subject to little or no variation, has been decreed to the population of England and Wales is untenable, and that the whole inquiry in the shape which it has hitherto assumed is

an unprofitable one. The problem is too complex to admit of solution at present, and cannot even be thoroughly examined until our acquaintance with the etiology of these diseases is much more intimate than it now is. Medical skill and statistical ingenuity have still much to accomplish before the registered mortality from nervous diseases can afford us reliable data on which to base calculations as to the amount of sickness, invaliding and incapacity, which they occasion. When we find in the Registrar-General's Report for 1876, 987 deaths ascribed to insanity (and it is difficult for us to understand what insanity as a cause of death really means), and when we find in the Report of the Commissioners in Lunacy for the same year 4,568 deaths of insane persons reported as having taken place in asylums, we are in a position to perceive how utterly inadequate the former returns are to supply us with the means of estimating the prevalence of any nervous disease. And when we find in the Registrar-General's Report upwards of 26,000 deaths, more than one-third of the whole mortality from nervous diseases, ascribed to apoplexy and paralysis which are so commonly of purely vascular origin, we are able to appreciate the futility of founding on such returns any speculations as to the increasing or diminishing liability of the nervous organs and textures to disorder or degeneration, and as to the pathological effects of the conditions of secular progress upon them. Of this we may be satisfied, that nervous diseases do not stand still. As the general rate of mortality fluctuates from time to time in accordance with atmospheric changes, so doubtless does the rate of prevalence of nerve disease fluctuate in accordance with vicissitudes in that moral atmosphere in which the mind lives and moves and has its being. But as to what their general tendency is apart from temporary fluctuations, we are not in a position to dogmatise. And our policy, it seems to me, is not to wander clueless about this mazy subject, but to apply ourselves to determine whether particular nervous diseases that we can satisfactorily distinguish are spreading or not, and under what circumstances they wax or wane. With reference to many nervous diseases, this may now be done successfully, and the information obtained will be definite and trustworthy, will throw light on the disease and its congeners, and will be available for practical purposes. It has been ascertained that hydrophobia, an easily distinguishable disease, has been increasing rapidly, 228 cases having

occurred in the five years from 1872 to 1876, against 159 in the six years from 1866 to 1871. It has been shown that an increase of hydrophobia began soon after a reduction of the dog tax, and that the disease has a well-marked geographical distribution. The publication of these facts led to the formation of a competent committee to investigate hydrophobia anew, to the provision of funds for the purpose, and to a considerable destruction of stray dogs. And with respect to a large number of nervous diseases, similar definite results might be obtained, and similar renewed investigations undertaken with very sanguine anticipations.

And in the further investigation of nervous disease, which it is to be hoped will be undertaken, conjoint inquiries ought to take a prominent place, for one reason of the tardy scientific advance of our department, besides those previously mentioned, is probably to be discovered in the fact that most of the work done in it has been carried on by solitary labourers. Excellent results have often been obtained by individual effort, but yet it is indisputable, that medical science can be best pursued by an organised system of research, and by a methodical division of labour amongst a disciplined band of explorers. Thus only can facts be duly certified, the treacheries of personal bias and partial scrutiny avoided, and speedy progress achieved, for obstacles that would have long retarded the isolated student melt away before the ardour of a group of pioneers.

I am aware that the advantages of united and correlated investigations have already received recognition in this Society, and that Committees have been appointed to conduct certain inquiries, and have collected some useful information. But as yet no results of any magnitude have been obtained by concerted and co-operative industry in our Association, and this is not to be wondered at when it is borne in mind that its members are scattered over the country, and have great difficulty in meeting or working together.

My own hopes for the future of conjoint researches in connexion with mental diseases are fixed not so much upon Committees of the Association, as upon the combined action of the Medical Officers in large Asylums, and upon local committees, of which Asylum Medical Officers might form the nucleus, and into which might be attracted the medical talent and enterprise that abound more or less in the neighbourhood of every asylum. In this way much good work might be ac-

complished, and something might be done to break down whatever estrangement has sprung up between our wing and the main body of the profession.

But more fruitful of good effects than even any conjoint researches would be the conversion of our asylums into clinical schools to a far greater extent than has yet been attempted. Only when an Asylum Medical Officer is accompanied on his visits by other medical officers or students, when he is teaching as well as observing and prescribing, and when his comments and practice are canvassed by keen and even captious intellects, can he do full justice to himself, his patients, and his profession. And asylums situated near the centres of medical education ought to be readily made clinical schools. The backwardness of students in availing themselves of the opportunities hitherto given them of attending in Asylum wards must, I think, be partly attributed to the desultory character of the teaching which has been there provided for them. The novelty of being in a mad-house soon wears off, the curiosity as to lunatic eccentricities and antics soon palls, and then hard-worked students, hungry for skill and knowledge, are not to be detained by racy anecdotes, nor learned disquisitions. When we make our asylum lectures dove-tail as it were into the general medical curriculum, when we teach with rigorous exactness the higher physiology and pathology of the nervous system, when we collate essential facts into tenable compass and serviceable form, and above all, when we guide to the just observation of symptoms and the dexterous use of remedies our wards will be thronged with eager students. Then, too, will attendance in these wards obtain due recognition as an integral part of medical education, and perhaps as a recommendation for some kind of professional dignity. For when all portals to the profession, save one, are closed, and when University degrees and the licenses of corporations have ceased to be qualifications for practice, and have become honorary distinctions, or badges of special preparation, it will not be unreasonable to ask that some mark of fitness should be conceded to those who have diligently studied a recondite branch of medicine, and who are willing to submit their knowledge of it to the test of examination. Medical Psychology might be appropriately included in the list of subjects to be taken up by candidates for the degree in Public Health or State Medicine. That degree would then become the accredited passport to Lunatic Asylum ap-

pointments, in which, again, there is an urgent and constant need of acquaintance with vital statistics, hygiene, sanitary engineering, and other subjects that are taken cognisance of in the examination for a Public Health degree.

Equipped with a Public Health degree, braced by the liberal training which the possession of that degree should involve, and particularly by the physico-chemical training which is day by day becoming of more consequence as the preliminary of all medical study, supported by zealous pupils and allies, our Asylum Medical Officers should be in a position to do valiant service to science, and to win for it many precious trophies. The material which lies around them is vast, their facilities for observation are unrivalled, and the assistance which they have at their disposal is of the most valuable description. They can calculate, too, upon a certain amount of that most fertile leisure that comes not in broken fragments, but in regular allotments. The great Lord Verulam reared up the stately fabric of his philosophy in snatches of meditation during the intervals of the Law Courts and State affairs, and surely many of our asylum doctors could find time between their rounds and correspondence for some searching into Nature in her abnormal phases. This Association would be fulfilling not the least important part of its mission if it encouraged such searchings, not merely by providing, as it does, in its Journal, a medium for the publication of its results, and for the interchange of thought amongst those engaged in it, but by contributing from its own funds, or, through its representations, from some other source, such as the Government grant in aid of research, towards the purchase of the instruments of precision that are so exceedingly costly, but that are so essentially requisite in modern physiological and pathological inquiries.

When I began this address, I proposed to myself to endeavour to supply an answer to questions frequently put by those who are just entering our specialty, and who ask what line of inquiry ought I to take up, what investigation may I enter upon with a fair prospect of a substantial return for my outlay of time and trouble? I proposed to indicate the directions which, in my view, physiological and pathological inquiry in relation to the nervous system may now most hopefully take, and to predict with whatever power of vaticination a careful survey of the past confers, the nature of the discoveries that are in store for

us. And now I find myself in the fulness of speech on the vestibule of my subject, and at the end of your patience. The Editors of the Journal will, perhaps, permit me, at some future day, to deliver in its pages the message which I have now failed to convey—an anticipation which consoles me for having to suppress at present speculations as to the future of localization of cerebral function of neuro-embryology, of the pathological chemistry of the brain, of psychological experiments, and of the application of the thermo-electric pile, the microphone and other instruments, to the elucidation of intracranial condition and changes.

These topics, and many others that might be enumerated, present an ample field to any number of ardent students, and each and all of them promise to reward investigation. One cannot, indeed, glance at the ground that lies immediately in front of us without feeling sanguine that an enormous access of knowledge in regard to mind and brain, will, in all likelihood, distinguish the close of this century. We are justified in looking for brilliant illumination in our knowledge of mental and cerebral states, and for a vast increase in our power of dealing with them. Mr. Simon, who is no juvenile enthusiast, holds that some one may shortly hit upon a specific for cancer. Why should we, then, despair of curing general paralysis or epilepsy? We have followed hitherto with too much docility in the footsteps of empiricism, and it must be by experimental pharmacology that we must now advance. New acquisitions in the shape of drugs are being daily given to us; it must be ours to define and localise their actions, tracing the connexions between chemical composition and physiological effects. Many of these possess striking and distinctive actions, which we ought to be able to utilize in the treatment of disease of the great nerve centres, which again we may before long be able to influence more directly than through drugs. It has been hinted that antiseptic surgery and our more accurate physiological and anatomical knowledge may yet make it possible to interfere instrumentally with some of these centres, and the experiences of nerve stretching and section, and of the electrization of the brain, especially in Ferrier's remarkable case, in which hallucinations of a special sense were removed by the continuous current, all point to an enlarged influence and control over the nutrition and functional activity of the nerve centres, and, therefore, to an increased control over disease.

And while we are thus hopeful as to the future of our specialty in relation to the curative treatment, we are entitled, I think, to be still more hopeful as to the part which it is destined to play in preventive medicine. There its authority and usefulness must surely and widely extend. The medical psychologist of the future cannot be confined to his asylum wards. It must be his to walk abroad and anticipate disease by throwing the weight of his experience and wisdom into the scales in favour of purity and truth in all questions of personal and social ethics. It must be his to warn in time against those little departures from strict physiological rectitude which lead after long intervals to mental overthrow and ruin. In education which begins not with the alphabet, but in the uterus, where the foundations of character are laid by the impression made on the embryo, and which continues until adult age, his counsel will be sought at every stage, so that the supplies of nourishment may be ordered in harmony with the developmental activity for the time being of the different groups of nerve centres, and so that we shall no longer have to contend with dislocations of knowledge and wasteful antagonisms of feeling. In the preliminaries of matrimony he will take his place beside the lawyer and his settlements, and marriages that may have been made in heaven, will be calmly revised in the consulting-room under the shade of two family trees. In the domestic circle he will become, as Dr. Bucknill has eloquently told us, the trusted confessor, competent by his insight to examine, and his art to heal those moral sores that fester, unsuspected in so many minds, and on which insanity is prone to graft itself, even as malignancy fastens on a raw surface. In the zenith of strength and ambition he will raise his warning voice against the prodigality that ends in the husks of despondency, and in the decline of years he will stretch forth his hand to support the tottering intellect, and to postpone the descent into the depths of fatuity.

With no arrogant pretensions, claiming not to be priest or prophet, but with the far sweep of vision that a standpoint on the heights of science gives, he will survey his day and generation, and with the modesty that is born of learning, advise how best to baffle our arch enemy disease.

To us the medical psychologists of the period, whose influence is scant, upon whom no such lofty mission devolves, it is still a duty to aid, as best we may, in warding off the evils with which the body politic is threatened.

And in order to do this, we must diligently study etiology, which is the basis of prophylaxis, and have regard to every social movement and political transition. Nor is it allowable for us to ignore the operation of that supreme faculty which, independently of sense and reason, enables man to apprehend the infinite. To us, that towering growth of consciousness which has its germ in primitive perception, its roots in the substance of history, and its branches in the heights of modern speculation, has a vivid interest, and an intimate relation to our daily work. For religion is still in the ascendant. It is not, as Feuerbach would have us believe, a brain-sickly fancy, but a conquering power, and the abnormality is not in those who yield themselves to its sway, but in those who profess to have shaken it off, and possess themselves in blank apathy or despair.

In following up the manifold historical evolution of religion in different races and regions, the medical psychologist must, I believe, become convinced that in all its transformations from the grossest fetishism up to the most spiritual belief it has made towards health, and has had a benign effect upon the human mind. It has been as the keystone of the arch-giving strength and completeness to consciousness. It has ever tended to preserve the equilibrium of the nervous system by the relief which it has afforded in the anguish of remorse, by the consolation which it has supplied under bereavement, and by the support which it has given in suffering and sickness. Who can say from what universal madness it may not have saved our race? True! in religion itself there is an inward disturbance that is not without hazard, while the disintegration of religious belief often induces mental aberration. But the general effect of a settled faith in those who have inherited it, or who have arrived at it, is to impart firmness and tranquillity to the whole nature. Almost every ascent from a lower to a higher belief, and every fresh glow in an ancient faith, may be shown to have proved favourable to sanity alike by its direct action on the mind, and by its indirect action through its influence on morals.

O, human soul! as long as thou canst so
Set up a mark of everlasting light,
Above the howling senses ebb and flow,

To cheer thee, and to right thee if thou roam,
Not with lost toil thou labourst through the night—
Thou mak'st the heaven thou hop'st indeed thy home.

The emphasis which I have laid upon science this afternoon in connection with asylum work might perhaps lead to the suspicion that I considered it the one thing needful in our lunatic hospitals. I would wish, therefore, finally to guard myself against such a misconception by saying that I am not insensible to the value of other qualities, above and beyond scientific tastes and acquirements in those who have to minister to the mind diseased. If I have refrained from dwelling upon these qualities, it is not because I under-rate them, but because I am persuaded of their prevalence. No one can inspect asylums in this country without perceiving with admiration the practical benevolence and administrative ability that are engaged in their service, and that make them such well ordered homes for a 'strangely visited people.' And no one can mingle much with the officers who preside over these asylums without arriving at the conclusion that they are, as a rule, animated by something higher than self-seeking, personal vanity, or the craving for the guinea fee. Most of them, happily, are stirred by that zeal that Talleyrand sneered at, that it is the fashion to decry, but that is the motive power of so much that is noble in human conduct, and of which one is glad to think there is often a strong under-current even beneath the deceptive surface of cynicism and indifference.

We may hold that science is for the future the true

"St. Fillan's well,
Whose spring can frenzied dreams dispel,
And the crazed brain restore;"

but we must at the same time maintain that Science is only lovely and of good report, when she is the handmaid of humanity, and when she blends modesty and tenderness with her native majesty of mien.