

On the medical selection of lives for assurance / by William Brinton.

Contributors

Brinton, William, 1823-1867.
University of Glasgow. Library

Publication/Creation

London : John Churchill, 1856.

Persistent URL

<https://wellcomecollection.org/works/zp8esmq3>

Provider

University of Glasgow

License and attribution

This material has been provided by This material has been provided by The University of Glasgow Library. The original may be consulted at The University of Glasgow Library. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>





ON THE
MEDICAL SELECTION
OF
LIVES FOR ASSURANCE.

THE
ON THE
MEDICAL BUREAU
OF
THE
NAVY FOR ASSISTANCE

ON THE

25

MEDICAL SELECTION

OF

LIVES FOR ASSURANCE.

BY

WILLIAM BRINTON, M.D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS : HONORARY FELLOW OF
KING'S COLLEGE : PHYSICIAN TO THE ROYAL FREE HOSPITAL : LECTURER ON PHYSIOLOGY,
AND ON FORENSIC MEDICINE, IN ST. THOMAS'S HOSPITAL : PHYSICIAN TO THE MUTUAL LIFE
ASSURANCE SOCIETY : EXAMINING PHYSICIAN TO THE INDIAN RAILWAYS, ETC., ETC.

LONDON :

JOHN CHURCHILL, NEW BURLINGTON STREET.

MDCCCLVI.

TO

RICHARD BAGGALLAY, ESQ.,

TREASURER OF ST. THOMAS'S HOSPITAL,

THESE PAGES,

THE SUBSTANCE OF A LECTURE DELIVERED IN THAT INSTITUTION,

ARE RESPECTFULLY DEDICATED,

WITH THE GRATITUDE AND ESTEEM OF

THE AUTHOR.

RICHARD HADGATE, ESQ.

ESQUIRE OF ST. THOMAS'S HOSPITAL

THREE FLOORS

THE ROYAL HOSPITAL OF ST. THOMAS'S, LONDON

THE MEDICAL RECORDS

WITH THE HISTORY AND DESCRIPTION OF

THE HOSPITAL

PREFACE.

THE Lecture of which the following pages are substantially a transcript was introduced by me into the Course of Forensic Medicine at St. Thomas's Hospital, in order to supply my Class with some information, which it seemed strictly in accordance with the spirit (if not the letter) of my duty to impart.

I have been induced to publish it, in the belief that such information may be useful to others than those to whom it was first addressed.

In preparing it for the press, I have made so few changes in either the matter or arrangement of the original Lecture, that I must warn the reader against anticipating more than such a short discourse might fairly be expected to afford. The brevity with which I had to treat of my subject forbade anything like full information, accurate description, or close and connected reasoning. The previous studies of my audience rendered it unnecessary for me to do more than allude to the various physiological and pathological details, by which alone my pro-

positions could be sustained or illustrated. My purpose obliged me to state all the rules I could suggest in such a short and simple form as would allow them to be easily remembered. And lastly, though feeling bound to utter all I knew, I was naturally anxious to avoid dogmatizing on a subject, in which our calculations rest on what is at present but an imperfect basis.

But though my remarks scarcely exceed the value of suggestions, I venture to hope that they are not without traces of more care than the form in which I have thought it advisable to put them together might seem to imply. At any rate I trust that, as the summary of a large experience, communicated without much reserve, they may fulfil my chief object: namely, that of furnishing some practical hints, which may assist those members of the profession who are new to such duties, in the medical selection of Lives for Assurance.

WILLIAM BRINTON.

20, Brook Street, Grosvenor Square,

March 8th, 1856.

ON THE MEDICAL SELECTION OF LIVES FOR ASSURANCE.

I SHALL not occupy much of your time, Gentlemen, in discussing the strictly Medico-legal bearings of Life Assurance. Many of these are indeed sufficiently obvious to spare us the necessity of any special notice. For example, since the calculations on which the theory of Life Assurance is founded, assume the natural death of healthy persons, the contract which a Policy of Assurance really forms may evidently be rendered void by the fraudulent concealment, at the time of effecting it, of some disease calculated to shorten life ; or what is equally fraudulent, by an unnatural, voluntary, and self-inflicted death. Hence a medical witness has been asked whether a person whose life was assured was the subject of any particular disease at a given time ; whether, if so, the fact must have been known to the person assuring ; or finally, whether the ensuing death of the assured was the result of some

disease thus concealed, or of accident, or suicide, or temporary insanity.

Here, however, although it is the circumstance of an assurance having been effected which raises the questions that our evidence is required to aid in answering, still this fact no way affects the questions themselves, further than by referring their decision to a civil, instead of a criminal, court. Hence there is no need for me to repeat what it is my duty to say in other parts of this Course of Lectures upon these topics.

But I venture to devote this Lecture to a subject which, though not falling within the precise limits of FORENSIC MEDICINE, is yet so near to them, and so important for you to have some information about, as quite to deserve a longer consideration than the single hour which is all we can concede to it. I allude to the general or ordinary duties of the medical practitioner with respect to Life Assurance ; and especially to *the medical examination of persons desirous of assuring their lives.*

It is probable that there is scarcely one of you present who will not hereafter be from time to time appealed to, for the purpose of instituting such examinations and reporting their results. Upon your report it will therefore often depend whether the future widow and orphan shall be provided for, or whether the overworked brain of the toiling father of a family must be further worn by anxiety for those nearest and dearest to him, the very commonest necessities of whose existence seem to depend on the con-

tinuance of his own life. On the other hand, your decisions may seriously affect the prosperity of any Office that honours you with its confidence. In short, it would be difficult to specify any department of your future practice, the possession of skill in which will prove more useful to the public, and therefore more honourable to yourselves.

I am aware that there are some excellent authorities on the subject of Life Assurance generally, who appear to form a very low estimate of the value of medical examinations. "There can be no doubt," say they, "that could we take one thousand of the persons passing along a crowded thoroughfare at any given moment, and effect assurances on their lives, the proceeding would commercially be a sound one:— in other words, the accumulated annual premiums paid by such persons, according to our existing Life-tables, would amply cover all the payments of policies rendered necessary by their deaths. It is equally certain that some very prosperous Offices have systematically insured Lives without subjecting them to any special medical inquiry."

Bear with me, Gentlemen, for one moment, while I point out the fallacies involved in such statements;— fallacies which I am the more anxious to expose, since they might otherwise lead you to think that I have exaggerated the importance of these duties; and therefore that less care, less skill, or a less stringent mode of examination, may hereafter enable you to discharge them.

As regards the first of these two statements, we will

not lay much stress on the fact that active movement in a crowded thoroughfare is itself no bad test of tolerable health, and is therefore a tacit argument for a better one, if such can be found. Nor will we be so invidious as to expatiate on the dangerous facility of reasoning from the preterpluperfect of the subjunctive; and collecting imaginary profits from Lives of which we can only say that they might, could, would, or should have been assured.

For, in point of fact, the real value of medical examinations is such that we might concede the full truth of this general statement, without at all narrowing the *locus standi* of our profession in relation to Life Assurance. We constitute, so to speak, the police of Life Assurance; and hence our usefulness (like that of the blue-coated guardians of our peace) must in fairness be judged of, not only by what we detect, but by what we prevent. Now there can be no question that many of the deadliest maladies to which the human frame is liable would often remain concealed to the eye of the unskilled laity, long after they could be easily detected by ordinary professional scrutiny. And since the greater his danger of death, the more important and obvious are those advantages which any individual can gain by the assurance of his life, we may feel pretty sure that, but for the careful medical scrutiny which is generally made use of, the fraudulent concealment of disease would be so frequent, that the present system of Life Assurance would be almost impossible;—in short, that, far from having that average of healthy and diseased Lives which doubtless must in theory remunerate an Office,

we should really have a class of Lives far below the average ; a class which would include many that might almost be regarded as selected by themselves expressly for their badness, and which would be certain in the long run to impoverish and ruin the wealthiest Assurance society.*

The second of these statements barely deserves a casual remark. In most if not all of the Offices which have been supposed to forego a special medical inquiry, the Board of Directors has included one or more members of our profession, an interview with whom may therefore be regarded as constituting what is to all intents and purposes a medical examination.

Hence, although the question " Why Lives for assurance require to be selected from that average, upon the deaths

* The kindness of an eminent consulting Actuary has lately afforded me the opportunity of testing the truth of the above conjecture, by inspecting the details of a number of assurances which had been effected without any medical examination. From three or four pages of these cases—which really seemed to be a fair representation of the whole—I collected no less than forty instances of death by pulmonary consumption, at periods which averaged eighteen weeks from the date of effecting the policy, but often did not exceed three, four, or five weeks ! The average loss to the society on these forty policies was exactly forty times the premiums paid. Now there are few fatal diseases which have so marked symptoms and so chronic a course as phthisis ; indeed, under medical attendance of ordinary skill, I suspect its average duration is scarcely less than eighteen to twenty-four months. But the same specimen of four pages also afforded me four deaths, certified as due to natural decay, the subjects of which had attained an average of 67 years, and had been assured on an average but twenty-two weeks, before thus dying of old age !

of which all the calculations of the actuary are based ?"—although this question, I say, is not for us to discuss, still we have seen that the most cursory answer to it well illustrates our professional duties. "It is probable that unless Lives were selected, they would not reach that average."

In like manner we may point out, that since, by the medical selection of Lives, we exclude the diseased or more dangerous cases, we thus form a healthier or less dangerous class ; and therefore, that the Lives so chosen enjoy considerably more than the average of longevity. Now this excess of longevity over and above the calculated average must necessarily form an important element in what is the only reasonable guarantee for the stability of any office ;—namely, the acquisition of constant (though moderate) profits.

In passing on to consider the duties for which it is my express object to prepare you, let me first say a word or two about the peculiarities of the examination which you will have to institute, when referred to by any Office for your opinion of the value of a given Life.

In some instances it will perhaps be one of your own patients who is the subject of this inquiry. And I need scarcely say how valuable, or rather how indispensable, is the information which the habitual medical attendant of an assurer can often thus afford to an Office ; and how useful an opinion you may found upon it, provided you take proper care to avoid that bias which even the most upright man may unconsciously possess towards the interests

of a friend and patient. Let me remind you, however, that these circumstances altogether change your ordinary relations to him ; that the mere fact of your being retained by an Office puts you into a position where you may have to become almost his antagonist : makes you a kind of "*advocatus diaboli*," to detect and display his every physical infirmity ; and, if need be, a judge to pronounce sentence against his claims.

Frequently, however, the object of your scrutiny may be an utter stranger. And in such a case, I think it will be advisable for you to bear in mind, how widely an examination of this kind differs from the ordinary interview of a physician with his patient. Unlike the latter, the candidate for Assurance has no reason for feeling any confidence in your skill : and knows that you are retained by the Office expressly to sift his pretensions. Far from being always and necessarily desirous of acquainting you with any flaws that he may suspect in his health, he will sometimes attempt to conceal them from your notice. And you must not wonder if he occasionally appears to wince under a searching question, or even seems disposed to resent it. In justice to him, Gentlemen, you will remember, that in bringing into light his hidden physical ailments and imperfections, you are attacking some of the strongest passions and feelings of our nature. Personal vanity, love of money, love of life, and the higher and more unselfish anxieties of a husband and father—all of these must be sometimes attacked and wounded by the

information you are so determined to elicit. And remembering this, though you cannot abate one jot of the stringency of your examination, you will be very careful to conduct it not only with tact, but (what is far better) with genuine kindness. You will let your scrutiny be not only thorough, but gentle and unobtrusive. And lastly, I will not insult you by dilating on the confidential nature of the information you thus acquire or by recommending you the strictest secrecy with respect to it : for this is a character which you are aware it only shares with all the communications that you will have to receive in your professional capacity.

The information you have to obtain as the basis of your opinion is of three different kinds. 1. The present state of health of the person before you. 2. His past history in the same respect. 3. The peculiarities of his family.

It is not very important under which of these three heads you commence your inquiry. But it is as well to have some definite rule, such as may aid the memory when you do not merely fill up the answers to a set of questions in a printed formula. And for some reasons it is most convenient to reverse the above natural order, and begin with the family history. A nervous person finds it less agitating to speak of others than of himself : and you, while listening to his answers respecting his relatives, can quietly scan his countenance, perhaps single out points for special examination in the subsequent part of your inquiry, or

judge from his manner how far he is likely to answer more personal and important questions with candour and frankness.

Family History.—Mere longevity of ancestors is not unimportant : especially where (as is often the case) it appears to be scarcely explained by the circumstances in which life has been passed. And conversely, it is a suspicious fact to find that the various members of a family have all been cut off at a comparatively early age : even though the diseases that form the immediate cause of death are unlikely, from their nature or variety, to have been the result of any definite tendency to this or that complaint on the part of the family. The term *old age*, which is indeed always relative, sometimes appears to have a meaning specific to different families. Of course the gravity of this suspicion will vary with the number of cases on which it is founded ; with the proximity of relationship (for example, is most important in the direct ancestors, especially in the father and mother) ; and with the nature of the fatal maladies (being on the whole most serious where these belong to the category of diseases of old age*).

The more specific reasons for this part of the inquiry are probably known to all of you. Certain diseases seem to have a special tendency to reappear in the offspring of those affected with them. And as this tendency may remain latent throughout the whole of life—that is, may never be called into activity by circumstances,—we get instances of

* Amongst which we may especially distinguish cerebral hæmorrhage, paralysis, and idiopathic gangrene.

“atavism ;” in which the disease of an ancestor reappears in his or her grandchild, without visibly involving the immediate parent of the latter. In like manner, the tendency may only be exemplified by collateral branches (for example, uncles and aunts) in one generation, but equally affect the children of the healthier individuals (the nephews and nieces of the diseased ones) in the next generation. Hence we do not look exclusively to the parents of a given person, but rather to his family in general. And on the whole, the detection of any one of these “hereditary” complaints in his family history indicates that he has a higher liability to the same malady than the mass of the community, whose average mortality forms the basis of Life Assurance.

But it is obvious that the influence of an hereditary tendency to any such disease on the prospective duration of life, must depend (1), on the danger to life which the particular disease involves ; and (2), on the degree on which its transmitted or congenital liability exceeds that risk which every individual runs of acquiring it. And the difficulty of exactly estimating these two points generally reduces our knowledge to little more than conjectures, which however great their practical value, have but little scientific accuracy.

Of all the hereditary complaints, *pulmonary tubercle* or *consumption* is that which has the most important relation to Life Assurance. Careful inquiry entitles me to conjecture that the mortality from this disease, among Lives properly selected, does not exceed one-tenth of its

average share in the general mortality of the whole population, as shown by the Registrar-general's returns.* And though much of this difference is ascribable to the class from which such lives are taken, and to the personal examination itself, yet much of it must also be attributed to the care which is usually exercised in inquiring into the history of this disease in the family of proposers for Assurance.

There is no tabular information as yet collected that affords satisfactory grounds for any exact estimate as to the frequency of hereditary consumption. Accurately to diagnose the disease is often so difficult, that it is by no means every observer on whose statements we can rely. For example, nobody who is conversant with the details of sickness and death among the poor, can suppose that in the many thousand infants annually registered as dying of consumption, the statement is always (or even generally) based on a careful physical examination of the chest during life by an accomplished auscultator, much less by dissection after death. Mere inquiries of unprofessional persons respecting other members of their family affected with this disease are accompanied with a still greater (though somewhat kindred) vagueness. Some suppose consumption and decline to be quite distinct; and answer with a negative your question about the former, because they have heard the latter referred to. Others speak of asthma, bronchitis, pleurisy, and inflammation of the chest, in perfect ignorance that these terms may, and often do,

* I base this statement chiefly on my own experience as Physician to a large Assurance Society.

conceal the primary tubercular disease on which they immediately depend.

The latency of the predisposition already referred to involves us in another and equally serious difficulty. If we only search amongst the fathers and mothers of our cases, we shall certainly overlook a great many well marked instances of transmission. But the disease itself is so frequent a cause of death, as to produce about 1 death in 7, or 15 per cent. of the whole mortality. Hence enlarging the sphere of our inquiries in any given family soon increases the chances of our meeting with this disease to a degree that makes it all but impossible for us not to detect it in some relative.

For example, let us suppose the person who is the subject of our inquiry can afford us information respecting his father and mother ; and the two brothers and sisters, as well as the father and mother, of each of these parents. Here within this circle of closest consanguinity are ten persons ;—namely, two parents, four uncles and aunts, and four grandparents,—of whom, on an average, one and a half will have died of consumption. Hence, except in numbers exceeding this average, mere deaths by consumption afford no very safe conclusion.

My own inquiries among Hospital patients decidedly consumptive, within this circle of relationship, are summed up by the statement, that 90 per cent. had lost some one of the above relatives by what appeared to be the same disorder ; and that instead of one and a half out of ten (the average mortality) about three and a half had thus died.

I think, therefore, we must deduce that, however strong the hereditary influence of this disease, we have no right to condemn a person on the mere suspicion which a single instance in his family can afford. And I venture (though I acknowledge with reluctance) to offer you the following practical rules which may guide you in fixing the degree of this apparent influence that can justify such a proceeding.

There is an impression (which is favored by some well known facts in the physiology of generation) that the tendency to phthisis is more likely to be transmitted by a mother than by a father thus diseased. Other things being equal, it may be so. But any such preponderance is often outweighed by a strong and predominant likeness of the offspring to either of these parents. For such an external likeness may well be supposed associated with an equal similarity of constitution, especially where it involves the framework of the cavity in which the disease chiefly shows itself. Hence though the father of our subject of inquiry may have died of decline, still if he himself takes strongly after his mother, this resemblance to the healthier branch of his ancestry goes far to nullify the injurious suspicions which his father's death might otherwise have excited.

Where, in addition to a consumptive father or mother, you find a consumptive brother or sister, you will do better to decline the Life. The influence of a consumptive grandfather or grandmother, in addition to a father or

mother, is rather less decisive ; because, as you will observe, it is more dilute.

Where the father and mother have both died of consumption we can have still less doubt. In the preceding cases the probabilities of a consumptive tendency have been merely accumulated. But in this they are multiplied ; —so multiplied that (as is well known) such unhappy unions sometimes end a family, by the successive deaths of every one of the offspring with this dreadful disease.

Where neither father nor mother have died of consumption, and where the deaths, collaterally and upwards, within the above limits, are equally free from this disease, it will often be very hard to say what influence the deaths of brothers and sisters should have. You had better, I think, allow for numbers ; and, for example, not permit one or even two deaths by consumption, out of ten brothers or sisters, to decide you against an individual otherwise healthy. And, beside allowing for likeness (or the reverse) between the deceased relative and the subject of examination, you must recollect the influence of intemperance in the male, and of the few dangerous years that immediately follow puberty in the unmarried female. It will also be well to inquire at what ages the consumptive brothers or sisters have died. Where they have all died, for instance, at or under the age of 25, and your subject of inquiry has already attained the age of 40, his danger has greatly diminished.

Indeed, in all cases, this diminution of the risk of con-

sumption with advancing age must be systematically allowed for. The decrease is such, that at 40, half the danger is over ; and at 50, three-fourths in the male, four-fifths in the female. At 60, but one-fourteenth remains, even in the male, in whom we may regard the liability throughout the whole of life as about one-fourth greater than in the female (5 to 4).

Any attempt to estimate the importance of another of the hereditary diseases—*insanity*—offers us difficulties even greater than those of consumption. But as the disease itself shortens life to a much smaller extent, the tendency to it seems less significant. The circumstances of the madness supposed to be transmitted would often guide us to a better estimate of its influence than any arbitrary rule could afford. One exception, however, it is important to notice. Persons are often said to have died mad, when, on inquiry, the insanity turns out to have been senile dementia ;—a form of mental alienation that is sometimes little more than a variety of old age, and hence no valid argument against the longevity of a descendant.

With just as brief a notice we may pass over a number of other maladies, such as cancer, gout, and heart-disease, which are known to be sometimes hereditary. To exercise much influence on our present object, the disease must coincide in two or more relatives ; and even then it will rarely be available for more than a limited aid to our decision.

Personal History.—Turning from the account given by

the subject of our examination respecting his family, we must next inquire into his own history :—a category in which we may not only include his personal habits, but may conveniently (though incorrectly) group many of the circumstances in which he is placed at the time of being examined.

Of these habits there is none into which it is more important to inquire than *temperance* ; and none respecting which it is more difficult to obtain trustworthy information.

Merely to ask a person “ Are you temperate ? ” is a waste of speech. For it may be laid down as a rule, that few men will allow themselves to be otherwise, whatever their transgressions in this respect. Indeed, there is no particular in which the mass of mankind feel less scruple in misleading our inquiries by what seem to be more or less direct untruths.

It may guard you against some of these subterfuges to remind you, that temperance means temperance in eating as well as drinking ; that a man has been known to describe his habits as regular on the strength of being regularly intoxicated ; that others state themselves to be temperate, because though always partially stupefied by alcohol, they are rarely downright comatose ; that others regard themselves as temperate, considering their circumstances, allowing for their temptations, comparing themselves with their neighbours ; that others boldly pledge themselves to the same assertion after a week or two of careful preparation for your scrutiny. In short, that if you take their state-

ments at their real value they are best arranged in the formula, $x=0$.

In point of fact, the only way to get a reasonably correct answer of this kind is, never to ask for it directly, but to regard it as a summary of the information derived from your own questions and observations.

In respect to your questions, you must find out (as nearly as possible) both the quality and the quantity of fermented fluids the person habitually consumes. This, with a little tact, it is not difficult to do. And, of course, if you discover that he takes a gallon of beer, or a bottle or two of wine, daily, with a glass of spirits in the evening (increased to two or three in the company of friends)—why you will receive any asseveration of temperance with which he may have prefaced such a confession, *cum grano salis*.

As regards your observations (in speaking of which here I am sacrificing the regularity of my remarks for the sake of their practical usefulness) you must all of you be familiar with the appearance that habitual intemperance produces in its victims. Mere gluttony does not carry such distinct or independent marks as the drunkenness with which it is generally associated. But the crapulous drunkard and the dram-drinker have much in common.

The chief characteristics one can briefly express in words are the fiery, unctuous skin, with its secretions reeking with volatile fatty acids; the red and ferrety eyes, with their fitful glare, rather than gleam; the furred tongue, the foetid breath, and the trembling limbs, that often announce the impression made by the copious habitual

ingestion of alcohol on the stomach and nervous system respectively.

Are tee-totalers good Lives? Merely in respect to the fact of their teetotalism they decidedly are. They are spared (especially in the lower ranks) many of the temptations of their fellows, and thus many chances of disease; they are less likely (because I believe less able) to work themselves to death; and beside this, the mere fact of their having so much prudence and self-restraint is one that will probably enable them to surround themselves with many of those comforts which really prolong life.

But the permanence of the ill effects produced by those habits that often precede tee-totalism, will frequently oblige us to reverse the above answer. I have seen quite enough to justify me in asserting that the reformed drunkard is not a good Life; and that (whatever may be the case as regards his moral nature), his repentance, as regards his physical constitution, often comes too late. Many months, or even years, of the most complete abstinence, scarcely suffice to restore his probabilities of existence to a level with those of the temperate user of alcohol. Setting aside the not inconsiderable chances of his relapsing into old habits, his constitution often seems to have a peculiarly treacherous character; its apparently robust health consuming away with unusual rapidity under a moderately severe attack of any acute disease.

Those laws of our physical existence which render light, air, and exercise necessary conditions of health, are so well known to you, that I need hardly mention them

save to add, that in the large numbers of persons with which Life Assurance is concerned, they are even more essential to longevity than in any given individual. Hence a man who practises a sedentary* calling in a dark, low, ill-ventilated room is (*cæteris paribus*) a bad Life, especially where there is any reason to suspect a phthisical taint. For such habits are, of all others, the most calculated to develope it.

But we must not overrate the value of exercise so as to fancy that it may with impunity be carried to excess. Late researches have shown that, even in the more active out-door callings, the amount of sickness, and the rapidity of death, coincide with the degree of toil and exposure they imply ;—in short, that the human machine is worn out by overwork, as surely as any artificial apparatus we can construct. Hence though, in the middle ranks, an unusual liking for extreme physical exertion is often the mere expression of a robust frame, that is peculiarly calculated to support it, or even to benefit by it, among our brethren, the sons of toil, who have no such option, the case is very different. To them, indeed, we may apply, with an altered but melancholy significance, the words of the Apostle—“bodily exercise profiteth little ;”—just as, on the other hand, we may anticipate, in every mechanical invention that lightens their labour, another accession to the increasing duration of their life.

* An excellent illustration of this fact has been established by Dr. Guy, in the greater liability of compositors to this disease than the pressmen who work under the same roof.

The influence of special trades or employments on longevity is not yet known with sufficient accuracy to justify us in regarding them as specific causes of mortality, apart from the circumstances already alluded to. I shall therefore content myself with alluding to some of the more unhealthy avocations, without attempting to define the increase of risk they imply.

The most important are probably those in which persons are obliged to respire large quantities of pulverulent (and especially inorganic) substances. The grinders of Sheffield and Redditch used to be cut off by the pulmonary organization brought about by their inhaling the dust of stone and iron, with such frightful rapidity and certainty, that it seems almost incredible any civilized Christian community could have permitted this loss of life to continue, without exhausting all the resources of science and legislation in attempting its removal. Stonemasons, millers, and others, are exposed to a similar (though of course, less remarkable) risk.

Great exposure to cold, great fatigue, and remarkable alternations of temperature, have a perceptible effect on the mortality of a class. The couriers of Russia are said to die young, exhausted by their constant travel. And the journeyman bakers of our own metropolis illustrate by their great mortality the results of night labour and unrest, acting in connexion with alternate confinement in a hot and close bakehouse, and exposure in the cold and wet streets.

The specific poisons made use of in some handicrafts are

on the whole less dangerous to mere life. The lead, for example, used by painters, the mercury by looking-glass makers, or even the phosphorus employed by lucifer-match-makers, scarcely seem (though I must beg you to accept this word in its strictest sense) to have much effect on the deaths of the whole class. Besides, their results would be generally traceable in the examination of the individual.

How remarkably, however, a careful inquiry may modify and extend our previous conjectures, is well seen in some results recently published by the Registrar-General. He finds that the mortality of the ordinary labourer successively rises in the classes of shoemakers, miners, bakers, and butchers, to reach its maximum in the tavern-keeper or publican, in whom it is about two-thirds ($2\cdot7$ to $1\cdot7$) greater than in the labourer. I need say nothing to increase the significance of these facts ; or to add to the care with which, in examining a member of the latter class, you are bound to inquire into his immunity from that intemperance to which his calling so peculiarly tempts him, and to which this very great additional risk is no doubt chiefly due.

Residence is another of those important circumstances which it is more convenient to consider at once in its phases of past, present, and future ; unchanged and changed.

Mere differences in the place of abode within the limits of this country do not generally enter into the calculations of the medical examiner to a Life Assurance Society. It is

only amongst the noisome and overcrowded dwellings of our urban poor, that the influence of unhealthy residence is sufficiently marked and measurable, to be an element in the probabilities of existence. And this class, I need scarcely say, is hardly likely to offer candidates for examination.

It is chiefly with respect to changes of climate that such considerations come into action. The native of a different climate comes here to reside, and you are asked whether his Life is as good as that of one of our own countrymen. Or the Englishman is about to go abroad, and you have to determine whether his risks remain no greater than before.

Here it is convenient to distinguish between the constitutional effects of mere climate, and the risk of diseases more or less endemic to the inhabitants of a given locality. The latter you can only judge of by whatever information you may possess (or be able to acquire) respecting the place itself. The prevalence of ague at Galatz, or furuncle at Aleppo, or ophthalmia in Lower Egypt, are facts which you can only acquire each by each, as matters of specific information. And other things being equal, you would, of course, judge by the frequency and fatality of the endemic disease, how far it damaged the probabilities of life.

But there are certain general influences of climate, concerning which we can group our knowledge into something more akin to a law. The native of a warmer climate who seeks this country, runs a risk of pulmonic—and especially of tubercular—disease, which may be

roughly regarded as hardly inferior to that of an hereditary tendency of ordinary intensity. This risk we may probably consider as less in the case of an immigrant from southern Europe, than in one from a much hotter climate, such as Central Asia or Africa. It may also be supposed to be diminished where the person has already resided here some years without obvious ill effects ; both from such a lapse of time introducing that influence of age already alluded to, and also from its justifying us in the supposition of an immunity enjoyed by the individual.

The emigration of an Englishman to a much colder climate, though perhaps attended with more risk than is generally supposed, has a less definite effect ;—none, indeed, that can fairly influence us apart from that of the disease endemic to the particular locality.

As respects migration to a hotter climate, our knowledge is yet very imperfect. The diseases which such a change seems most likely to produce are chiefly those of the organs of digestion and assimilation. Hence any previous or existing lesion of these organs increases the risk incurred by a given individual. Fatigue, or exposure to excessive heat, and the danger of endemic disease, often form additional elements of the change, which however important, vary with every particular case.

Apart from these there remain but two circumstances of much account. One is, that the earlier after the completion of the epoch of puberty the person seeks these foreign climates, the better the acclimatisation that seems

to occur, or the less the risk of his residence there. The other is the remarkable influence of temperance ; which in hot climates is even more essential to health than in temperate or cold regions. The slighter and less perceptible effects of over indulgence in alcoholic liquors in a temperate climate—often mere dyspeptic ailments, the cause of which may remain unsuspected for years—are here exchanged for serious gastro-intestinal or hepatic diseases, that break up the system long before the usual epoch of those gouty attacks, by which the constitution of the Englishman at home resents such erroneous habits at the beginning of old age.

Practically, then, where your subject of examination is proceeding to India, you must look well to his age—relative as well as absolute : you must inquire what are his years, and see that nothing has made him virtually older than those years. Then satisfy yourself that his stomach and bowels (the latter especially) are habitually in good order, and that his liver and spleen are of healthy size. Inquire, too, whether he has ever had ague or jaundice. Lastly, you must not only find out whether he has ever been downright intemperate ; but also (if you can) whether he is strictly temperate. Of course, by temperance I do not mean total abstinence from alcoholic fluids ; although, in India, the moderate use of beer and light wines ought almost to exclude all consumption of ardent spirits.

History of previous diseases. It is scarcely necessary to state that there are few of the persons who come under our examination whose history is absolutely free from all

disease of any kind. And this very fact makes it of great importance that we should determine, as far as possible, in what degree the different ailments from which the individual may have already suffered, diminish his expectancy of life.

1. There are some which indicate a tendency to dangerous disease, inasmuch as they are frequently either precursors of its occurrence, or even early symptoms of its existence.

Of these *hæmoptysis* is perhaps the most important. A large proportion of the persons who experience this symptom ultimately die of that pulmonary disease of which it is well known to be one of the earliest, as well as most dangerous, symptoms. The precise per centage in whom the symptom is devoid of this significance—in whom either the hæmorrhage is independent of the presence of tubercle, or the tubercular deposit fails to kill—remains quite unknown to us. And I do not see any advantage in burdening your memories with statements of the proportionate frequency of hæmoptysis in ascertained phthisis; because, even assuming their accuracy, such figures reflect little light on the more important question as to how frequently hæmoptysis ends in consumption. You must be content to know that it has this termination so frequently, that we are obliged pitilessly to exclude every person who has ever suffered from this symptom, from the benefits of Life Assurance.

I place before you this outline of your duty in all its naked harshness, because I believe such a way of stating it is, of all others, the most likely to make you conscien-

tiously careful and accurate in filling up its details. You must carefully inquire into all the alleged cases of hæmoptysis that come before you ; and assure yourselves, as far as possible, that they really were what they are supposed to have been. To specify the signs by which you would diagnose this fact would lead me too far from my subject, and would probably only repeat what has been already told you by my colleagues, the Lecturers on Clinical and on Systematic Medicine. Of course, when you find (as I have done before now, in making such inquiries) that the blood came from the gums or the stomach, or that it was a mere streak that might well have been derived from the trachea or larynx abraded in the act of coughing, you will not allow it to guide you to such a decision. But, on the whole, the *onus probandi* lies with the case itself ; and if its circumstances fail to explain away the supposed hæmoptysis to your satisfaction, I venture to suggest your declining to recommend the Life.

Among circumstances that do not explain it away, let me mention the absence of phthisical taint in the family history ; or the fact that the spitting of blood has been ascribed to some exertion shortly before its attack. Unless the time of the hæmoptysis absolutely coincided with that of some intense and prolonged exertion, such an explanation has little in its favour. And even supposing this to have been the case, I can scarcely regard it safe to accept such a Life, except where the appearance, the personal and family history, and the health of the patient for a long subsequent period, all coincide to enforce the view of its accidental origin.

In the same class of symptoms we may place evidence of those degenerative changes which so often accompany old age, and indeed constitute that relative senility which it is so important for us to appreciate and detect. You will perhaps think me stating a truism, to say that a person who has had aneurism, paralysis, or senile gangrene, is not a good life. But I have known instances in which medical examiners appear to have come to the opposite conclusion.

2. There are diseases which offer us a serious warning when they occur in a person's history, because they frequently involve damage to structures that are peculiarly essential to life. Thus the mention of acute rheumatism should always lead us to examine very carefully into the condition of the heart ; and, if possible, to obtain a special report from the medical attendant of the person we are examining, with reference to the chief features of the attack. In like manner the occurrence of dropsy, even many years before, should always render us suspicious of existing cardiac or renal mischief, and direct our inquiry especially to these organs.

3. There are maladies which increase the risk of other diseases more or less independent of themselves. Such a character especially belongs to many complaints of the respiratory organs, which leave behind them a variable amount of permanent damage in these important structures. Thus pleurisy, or pneumonia, even when they end in recovery, rarely disappear without inflicting some permanent injury on that portion of the lung

which they have especially engaged. And if this portion be sufficiently large to constitute an important fraction of the whole respiratory structure, it is evident that any casual disease that may hereafter attack this organ is likely to be far more dangerous than where it involves lungs previously healthy. Indeed, in such a case, the mischief previously existing may (and often does) turn the wavering balance of life and death, and decide the latter event. But since it is not so much the history of disease, as the structural traces left behind it, upon which our calculations would be based, I may defer any fuller allusion to this point until it again claims our notice in speaking of the personal examination.

It may be useful, however, to caution you against receiving too implicitly the statements made by the subject of inquiry respecting the diseases he has gone through. In some cases the names given to the diseases are perhaps correct, and it is only our interpretation of their degree which makes them erroneous. But, in many instances, there can be no doubt that the nomenclature adopted is one such as the legitimate practitioner of medicine ought to relinquish to the quack. Thus a careful inquiry will sometimes entitle you to believe that the high sounding titles of inflammation of the kidneys, inflammation of the liver, inflammation of the bowels, have been attached to transient pains over the regions supposed to be occupied by these viscera ;—pains perhaps due to lumbago or constipation respectively. In like manner the term “pleurisy” often refers to that slight degree of this malady which a mere

stitch in the side occasionally entitles us to suspect. And "inflammation of the brain" is no very rare misnomer for the delirium of continued fever.

4. There are maladies which are suspicious features of a person's history from their liability to return; from their predisposing the constitution to their recurrence. Such are gout, asthma, dropsy, dysentery, gastric ulcer, and many others too numerous to mention. Of course in speaking of this liability to recur, I am supposing that they are completely absent at the time of examination; a fact which you would have to establish by the rules presently to be hinted at. But you must recollect that their worst features are sometimes latent; and hence that periods which seem to be real intermissions, followed by their return, have no real title to this name. Thus gout or dropsy may be associated with diseased kidney; such as can be readily detected by a careful examination of the urine in the intervals of the attacks, and is attended with a specific effusion into the joints or areolar tissue respectively. Asthma may leave its mark in the shape of emphysema between the paroxysms. And dysentery or gastric ulcer may be indicated, under similar circumstances, by such symptoms as diarrhœa, or vomiting, on the slightest error of diet.

5. And, lastly, there are certain diseases which we may not only contrast with the preceding in this respect, but may regard as almost accidental. These are the exanthemata, in which (for our present purposes) we may include the typhoid and typhus fevers. My own impression

is, that it scarcely argues more against a person's constitution to have had any one of these disorders, than to have received a fracture of his arm or leg. Different individuals have bones of different strength and thickness, and therefore of different fragility ; but all may be broken by violence. And, in like manner, any person who is sufficiently exposed to infection is pretty sure to catch any one of these maladies.

Indeed, as most of them generally occur at some time of life, and are (on the whole) more dangerous as life advances, it is rather an advantage (in other words an increase of the probabilities of life) for any individual to have already undergone them. For such a fact not only indicates a good constitution, but, from the rarity of their occurring twice in the same person, also lessens the risk of these diseases hereafter. Idiopathic erysipelas, however, we must exclude from this statement ; though where it recurs often, its later attacks are rarely very dangerous. I need only add, in concluding this part of the subject that you must remember the renal affection which often complicates scarlet fever, and the chronic disease of the kidney it sometimes leaves behind it ; and that it is part of your duty to acquire specific evidence either of small-pox, or of successful (or at least repeated) vaccination.

Personal Examination. — The personal examination which forms the third and last part of our inquiry is the most difficult, as well as the most strictly professional part of our duty. Hitherto we have had to do little more than interpret facts, which almost any one might have collected.

Now the very facts themselves are such as it requires the trained observation of a physician to detect and appreciate. And hence the few remarks I have to offer must be looked upon, less as rules for your guidance, than as hints which may assist to sharpen the keenness of your scrutiny in a few of the most important respects.

And, firstly, as to *age*. The person under examination is always required to adduce evidence of his age ; indeed the truth of such evidence forms the very basis of the contract between himself and the Assurance Society. With this his real age, it will always be your duty to contrast his apparent age, and carefully to note any discrepancy between the two. Experience alone can acquaint you with the various details on which an opinion of this kind must be founded—the thousand trifles of form and feature, of gait and manner, that sometimes make up the circumstantial evidence of commencing decay. And you must look to a combination of these details, rather than to an unusual prominence of any one or two of them, for correct information on this head.*

Akin to the appearances by which we generally infer the age of the person under examination, are some characters which are always worthy of notice ; namely, the complexion, the build, and the weight.

Weight is of course always to be considered relatively to height.

As a rule, it may be laid down that an adult male in

* Taken alone, for example, even the *arcus senilis* is scarcely a sufficient evidence of relative old age.

good health, 66 inches in stature, ought to weigh rather more than ten stones, or 140 pounds avoirdupois. And for every inch above and below this height we may respectively add and subtract about five pounds.

The variations specific to the individual (often indeed to a family) take so wide a range, that it is difficult to assign them any precise limit. But as a rule, 20 per cent., or one-fifth, is almost the maximum variation compatible with health. In other words, if our subject of 66 inches in stature weighed more than twelve stones, or less than eight, we should be entitled to look upon him with great suspicion.

But it is not so much a permanent or habitual variation from this standard that we have to suspect, as a rapid or sudden alteration of it. If our subject of 66 inches in height appeared, on close inquiry, to have gained or lost in a few months as little as fifteen or twenty pounds, this would be a far stronger feature against his Life than an habitual divergence of double or treble that amount from our imaginary standard.

The suspicions derivable from such rapid approaches towards emaciation or corpulence may be usefully checked by an inquiry into one or two circumstances. Towards the close of early adult life you are aware that corpulence generally increases ; indeed, partly from the cessation of growth, partly from the more sedentary habits into which many persons lapse about this period, the epoch from 30 to 40 generally renders a healthy person of either sex considerably stouter and heavier:—what our allies call

"*un bel homme*" in the man, and what the first gentleman in Europe elegantly described as "fat, fair, and forty" in the other sex. Conversely, you will of course recollect how rapidly a course of temperance and severe exercise, such as almost renews the youth of those who engage in it, can reduce the weight of the body to at least our imaginary limit of 20 per cent. Thus in the delightfully esoteric language of the Sporting Journals, that eminent pugilist, the Tutbury Pet, is announced to "fight ten stone," when, perhaps, but a few days before the event on which the eyes of all England are supposed to be fixed, the weight of his debauched frame is little less than twelve stones.

Excluding such influences, as we may easily do, emaciation points at some serious check to assimilation, or increase of waste, such as consumption or diabetes. In like manner, the rapid access of corpulence is generally due to intemperance, or to the privation of proper exercise; and in this point of view may be regarded equally as a sign of disease, or as a mark of premature old age.

Colour is an appearance which is often of the greatest importance. A florid and uniform facial colour is usually associated with that habitual activity of the skin which is the result of a life of active exercise in the open air. In persons of delicate skin, solar heat has a somewhat similar effect; though here the red colour is not only less intense, but is generally of a much browner tint. How much a ruddy colour may be heightened (or even to some extent simulated) by the effect of alcoholic pota-

tions, no Englishman who reads Shakspeare can be ignorant of. And the usual site of the greatest redness of this kind I need hardly specify in a populous city like this, where we may meet a Bardolph in almost every crowded street.

There is one modification of facial colour, however, which deserves a momentary allusion; since I think it may sometimes guide you to a valuable conjecture, such as may be at once confirmed or refuted by further inquiry. We sometimes see the cheeks of a middle-aged person coloured—not by a flush of mere redness, such as can be produced by the glimmering of blood in the minutest capillaries of the skin—but by streaks of distended blood-vessels themselves, which give the middle of the cheek a peculiar mottled appearance.

Whenever this streaky congestion is contrasted with great pallor of the skin generally, and especially of the surrounding integuments, you will do well to examine carefully into the state of the urine. This physiognomy (which my brief description may perhaps indicate, but certainly not depict) has often attracted my attention in a crowded Out-patient room: and (taken in conjunction with the soft velvety skin by which Nature strives to eliminate urea from the system in such cases of obstructed renal secretion) has enabled me to predict the presence of albumen in the urine.

The opposite complexion, or pallor, is just as grave a feature in any given case. Supposing that it is too intense or too recent to be regarded as an individual or

family peculiarity, and that it is not explained by the habits of the subject of your examination—for I may remind you that dark rooms and close hot air will blanch a ruddy face, just as they would the coloured parts of a plant—it becomes a very suspicious sign. I shall not enumerate the diseases by which such pallor is most likely to be produced : they are too many and too diverse to be usefully cited here. Loss of blood, deficient formation of this fluid, or excessive waste of the tissues it furnishes, may all give rise to this hue ; though with certain modifications in each of these cases respectively. But from the frequency of pulmonary consumption in this climate, the cachexia which such paleness denotes is perhaps more frequently due to this disease than to any other malady.

Deformities require careful notice, even when the immediate effects of the disease or injury that may have caused them have long passed away, and the general health is completely restored.

Thus, as regards the *chest*, its shape is rarely much altered by disease or injury, without a considerable diminution both of its capacity and mobility. Each of these losses entails a corresponding damage upon the function of the chest as the organ of respiration. And though this damage may not reduce the action of the organ below what can effect all the breathing ordinarily necessary, it becomes much more serious when any disease (however temporary) engages another portion of lung. For then the unaffected structures, which might otherwise have

compensated, by their increased energy, for that impairment of the organ as a whole which such disease implies, are perhaps unable to do so, owing to the additional impairment produced by the deformity. Hence the thoracic deformity left by pleurisy or emphysema, or even by distortion of the spine, may render fatal a limited attack of bronchitis or pneumonia, such as a healthy person would easily have recovered from. And when we consider what a large fraction such diseases of the respiratory organs form of the whole causes of death in this climate—or, in other words, considering their moderate fatality, how very unlikely any person is altogether to escape them during a long series of years—we shall find reason to conclude that the presence of such deformity implies what must, in the mass of cases, amount to a serious diminution of the probabilities of life.

How far the deformity present in any given instance is likely to injure the function of the chest as an organ of respiration, can of course only be determined by its nature and amount, as well as by other circumstances that are sure to vary in each particular case. With proper limitations, great aid in such an inquiry is afforded by the Spirometer, an instrument to which we shall allude again by and bye.

There is one deformity of the chest, however, which we may notice, as being rarely a valid objection against the individual in whom it may be found. This is the peculiar shape to which the term “pigeon-breasted” is generally applied; owing to the sternum being unusually projecting

and the chest itself flattened on each side. This shape, which appears to be due to a want of proper hardness in the costal cartilages, and in the adjacent ends of the ribs prior to their ossification, and which I have found in several instances to be hereditary, can be shown by all ordinary tests (including the spirometer) to inflict comparatively little damage on the capacity of the chest.

Deformity of the *pelvis* is of course rarely to be detected in an ordinary Life Office examination. But it may often be fairly inferred from the existence of considerable malformation in the adjacent segments of the spine. And though we can hardly go the length of the zealous French accoucheur, who thought that every village *curé* ought to possess an accurately graduated pelvimeter, and by its aid reject all female candidates for matrimony whose parturition would much endanger themselves or their offspring, yet there can be no doubt that, except in woman past the age of child-bearing, the existence of much pelvic deformity affords sufficient grounds for rejecting a female Life.

Respecting the degree in which *hernia* impairs a person's expectancy of life, it is difficult to say anything satisfactory. But that it does do so, the frequency with which strangulated hernia occurs as a cause of death in the registered mortality of the population, places beyond all doubt. The only questions are—Whether this increase of risk is such as to demand any extra premium? And if so, by what addition it may be compensated? Any answer to these questions, on accurate medical data, I confess myself utterly unable to afford you. And from the

fact, that different Offices demand a high extra rate, a low extra rate, or none at all, I may presume that the majority of Actuaries have no definite numerical foundations for the graduated hernia premiums their respective Offices allot to the subjects of such deformities.

A few remarks, however, may be added to this confession of ignorance. Firstly, always examine the alleged hernia. I have sometimes found that the supposed rupture was an undescended testicle ; sometimes had reason to conclude that the previous hernia had been removed by a well-adjusted truss worn during many years ; and twice, could specifically assert that the patient had never had rupture at all.* Secondly, hernia is more dangerous in the female than in the male : partly from its being usually femoral instead of inguinal ; much more, I believe, from the concealment which modesty leads women to adopt respecting its occurrence or aggravation. Thirdly, the avocation of the subject of hernia is worth considering ; since, if it implies violent bodily exertion, it increases the risk of strangulation. Fourthly, the duration of the hernia does not seem to have any effect upon its danger, sufficiently marked or frequent to guide our conjectures ; a recent hernia often becomes strangulated, and even a large old hernia not unfrequently undergoes the same

* One of these supposed cases of hernia had been lately discovered by a notorious practitioner of homœopathy, who, no way disconcerted by his patient's acquainting him with the result of my examination, gravely attributed its sudden and complete removal to the globules prescribed.

accident. Fifthly, the constant wearing of a well-adapted truss is of course a favourable feature in any given case ; especially where this treatment, in a young subject, has already reduced the size of the tumour.

The effect of the loss of a limb, or a special sense, it is rarely necessary to estimate. Amputation of a limb for disease is said to confer an increased risk of visceral—especially of pulmonary—disease. But here the previous malady would itself enter into our calculations, as well as the present health (including any appearances of latent mischief) of the person examined. Amputation for injury or accident is also said to be often followed by a plethoric state, and a tendency to corpulence, that are attended with increased risk to the constitution. These, however, would also be visible facts, that could scarcely escape notice.

And in respect to these mutilations, as well as to complete blindness, deafness, and the like, we may sum up their other chief indirect effects, in the general statement :—that whatever interferes with the exercise natural to a healthy individual, or deprives him of the proper guards against accident which nature furnishes, of course increases his risk of disease and injury respectively. But how far it will do so must be judged of from the details of each case ; in other words, the habits and circumstances of the individual. In the affluent classes, the care and attention that wealth can secure, often reduce the influence of such accidents to a minimum that may practically be overlooked altogether.

The influence of *open ulcers* or *sores* is much more serious ; and will generally oblige us to decline any Life in which they are present. The elements of the increase they add to the average risk are not very difficult to imagine. They imply a drain on the constitution which, as age advances, and nutrition declines, may become a dangerous or fatal one. Their closure sometimes brings about visceral disease, by revulsion of morbid action to internal organs. They indicate, in the main, either a bad original constitution, or hurtful habits of life—often both. Lastly, while they may at any time take on an increased action, so as to threaten the limb or the life, they involve no inconsiderable risk of infection with erysipelas ; if indeed they do not sometimes form a channel for the reception of other exanthematous disorders.

The detection of latent or nascent disease is the last (but not least) object of our examination.

It is obvious that, even supposing the art of diagnosis were perfect, the most skilful physician would be unable to satisfy himself of the complete absence of disease, save by a sedulous examination of the whole body. But I need scarcely tell you that so stringent a procedure is neither necessary nor practicable, in an ordinary examination for Life Assurance purposes. In short, the inquiry we have to conduct is directed towards such diseases as are especially calculated to shorten life ; and the examination of the subject of Assurance is generally restricted to what may be undergone without much difficulty, and without any injury to ordinary feelings of delicacy.

Distinguishing the four chief groups of organs—the nervous, the digestive, the respiratory, and the circulatory—it is evident that the means already suggested have, in the case of some of them, left us little more to inquire about.

Assuming, for instance, that our subject of examination has no nervous disease entering into his history, if we find that his habits are active, his pursuits such as require sanity of mind and body, his face devoid of all traces of paralysis, his gait and gestures vigorous and healthy ; these circumstances almost suffice of themselves to exclude all suspicion of cerebral or spinal disease, such as the most sedulous examination of the skull or spine could detect.

In like manner let us suppose that, with an equally healthy history, our subject of inquiry has always been temperate, that his digestion is good, and that his bowels are habitually regular. We look at his tongue, and find that its healthy appearance silently confirms the statements it has verbally made. We examine the belly, through the ordinary dress, and find that the liver and spleen are not enlarged, that the abdomen itself is not unduly corpulent for the age of the individual :—and we have almost as effectually excluded the presence of serious disease of the digestive organs.

In like manner with respect to the urinary apparatus, careful inquiry will often give us so healthy a history of its function as to allow us to dispense with all further examination, not only of the organs themselves, but even

of their secretion. It is only where gout, scarlatina, dropsy, or some other disease or appearance of a like suspicious character, specially directs our research toward these structures, that we need alarm or annoy our subject of examination by insisting on any further inquiry.

It is to the viscera of the chest that our observation may be most usefully directed ; both from the frequency with which constitutional disease implicates these organs, and from the comparative facility with which such disease may be detected.

In the male, the ordinary dress generally affords few obstacles to a sufficiently searching examination. The person stands nearly upright, leaning with his back against the wall ; and throws backward his coat and waistcoat so as to expose the under clothing that covers the chest and upper part of the belly.

We now examine into (1,) the shape of the chest ; (2,) the nature and extent of its movements ; (3,) the relative situation of the lungs and heart, as determined by percussion of its walls ; (4,) the character of the sounds given out by the pulmonary regions of the chest under the same test ; (5,) the vocal thrill felt on applying the hand to the same regions while the subject of inquiry is speaking ; (6,) the character of the sounds of breathing, as ascertained by auscultation ; and (7,) the character (including the force, timbre, and rhythm) of the cardiac sounds under the same test ; with these we compare (8,) the frequency of the pulse ; and, (9,) of the breathing.

It is of course impossible to mention here all the

varieties of information thus revealed. I shall only allude to one or two of the most important.

Few would overlook the remarkable deformity sometimes produced by pleurisy, where one side of the chest gradually contracts around the condensed and atrophied lung, remaining shrunken, motionless, dull to percussion, and almost useless for the purposes of respiration. But those smaller degrees of the same state, in which the injured portion is but a fraction of the whole lung, are often associated with so little deformity, that anything short of careful examination might allow them to escape notice. Even here, however, we may generally find the diseased part indicated by a flattening of the convex ribs, a dulness of percussion, and a diminished respiratory murmur, after the more striking indications of disease have long disappeared.

The evidence of chronic deposit in the lungs, (synonymous, in the majority of cases, with *tubercle*,) is of course less characteristic; varying with the rapidity of its deposit, its amount, and its diffusion throughout the chest. But as it is not so much the diagnosis of phthisis, as the signs of its earliest access, with which we are here concerned, we may assume that the deposit is scanty and scattered. In such cases the chest is narrow, especially above; and the shoulder-blades are lower, and nearer to each other, than they should be; its movements are diminished; its sound to percussion is duller than natural. And as regards the vocal thrill, and the vocal and breathing sounds heard by auscultation, the kind of information

we get may be summed up in the statement that (except in those rare instances in which the deposit is uniformly dispersed, in exceedingly small masses) these signs are irregular and variable—in one word, *heterogeneous*—in different parts of the lungs; instead of being regular, even, and homogeneous, as they are in health, in spite of the most striking individual peculiarities. The broken sound of inspiration, the long one of expiration, and the various signs of solidification or cavity, we need hardly mention.

The signs of *emphysema* are even more important, because a moderate degree of this structural lesion may not only be unsuspected by the subject of inquiry, but is quite compatible with an absence of all other symptoms at the time of examination. Indeed, such persons are often regarded by the ignorant as having remarkably fine chests. Here the chest is unnaturally deep from before backwards as well as from above downwards; and, in extreme cases, contracted in either hypochondrium. The shoulders are raised. The movements of the sternum are much diminished; breathing being effected chiefly by the diaphragm. The unnaturally resonant or tympanitic sound given out by percussion under the clavicles, is contrasted with a deficiency of inspiratory murmur in the same region. The enlarged lung overlaps the heart, usurps the space in which the point of this latter organ ought to render the surface dull to percussion by its contact, and often transfers its visible pulsation to the upper part of the epigastrium. And the liver is often similarly displaced downwards.

The influence of a *hump-back* varies with the nature and site of the spinal distortion. But though it often reverses the effect of emphysema in the particulars last mentioned, it generally resembles this lesion in the diaphragmatic character of the breathing ;—rarely in any diminution of respiratory murmur over the more motionless ribs.

The detection of *cardiac disease* by auscultation demands (like the diagnosis of the preceding pulmonary lesions) the possession of a high degree of practical diagnostic skill in the examiner :—skill such as no cursory remarks of mine would aid you in attaining. As a rule, we first inquire, by percussion, whether the heart is enlarged, so as to claim an undue contact with the thoracic parietes, and push aside the lung or lungs. We then feel its impulse, and ascertain whether this also is of natural intensity and local extent. Lastly, we listen to its sounds : the dull systolic beat, coinciding with the impulse ; and the sharp click produced mainly by the sudden tension of the semilunar valves.

The varieties of these sounds compatible with a perfectly healthy state of the circulation, do not require much notice. The first, or systolic sound varies, however, much more than the second ; the character of which may be regarded as tolerably constant. The physiological, (and even pathological,) reasons for this contrast I must not here enter into.

Their rhythm, or relative duration and succession, is nearly as important as their character ; although less easy to verify when but slightly modified.

Practically, however, you must not imagine that there are many instances in which auscultation, however carefully conducted, entitles you to reject a Life otherwise a good one, by detecting cardiac disease. In the majority of cases the information thus acquired is either quite satisfactory, or if suspicious, requires to be checked by that additional evidence which is derivable from family and personal history, and symptoms. And were we to consider it quite apart from these symptoms, it would occasionally lead us into much perplexity, if not error.

In other words, the early diagnosis of even such structural maladies as phthisis, or valvular disease of the heart, is much more frequently effected by constitutional symptoms than by physical signs. And as regards mere auscultation, it is sometimes very difficult to determine whether the sounds heard are those of cardiac disease, or of a heart structurally healthy, but functionally excited by the nervous agitation of an examination.

Thus, as respects phthisis, it often happens that long before any definite evidence of structural disorder can be obtained by the most sedulous examination of the chest itself, the symptoms sufficiently reveal the coming (or rather the existing) mischief. The sufferer, even when retaining all his ordinary habits, becomes paler, loses weight, is perceptibly thinner: his pulse and respiration rise from about 65 and 20 per minute, to 90 or 100, and 25 or 30, respectively. He feels so much dyspnœa on exertion, that he can no longer walk or run rapidly, and is rendered quite breathless by quickly mounting a flight of stairs. While—to say nothing of the characteristic physiognomy,

the brilliant eye, the pearly conjunctiva, the haggard but excited face—the spasmodic working of the nostrils in respiration reveals a state of dyspnœa, probably pulmonary, which tells the same tale as the above symptoms and history.

It is in such cases that the *Spirometer* is most useful as an aid to diagnosis. Even at this early stage of the disease, the tubercular deposit, however scanty in quantity, and diffuse in situation, rarely fails to damage the efficiency of the lungs as an organ of respiration. And hence it reduces the “vital capacity”—that is, the maximum expiration of the lungs in cubic inches of air—to about 25 or 30 per cent. below the standard of health.*

* The following details are subjoined for the convenience of those readers who may not be able to refer to any physiological treatise containing the descriptions and statements which the audience to whom this Lecture was delivered had been made acquainted with by the Lectures on Respiration in the Physiological Course.

My own observations among the class ordinarily presenting themselves for assurance, induce me to estimate that the healthy male, from 15 to 50 years of age, and of average weight (10 stone) and height (66 inches), has a vital capacity of about 200 cubic inches. For every inch above and below this stature, between 72 and 60 inches, we may respectively add and subtract about eight and a half cubic inches of capacity.

The variations of this vital capacity in respect of excess we need not notice. In regard of deficiency, about 15 per cent. below this standard may be considered as the minimum compatible with health. And even with less than this deficiency, it is advisable to seek for some explanation in the other circumstances of the case: such as advancing age, sedentary habits, or excess of weight; to which, either singly or in combination, such a decrease may be attributed.

Of these three circumstances, the third is probably the most valid

The use of this instrument offers no difficulties such as may not be easily either obviated or allowed for. It is applicable chiefly to the male, during the period of vigorous life that intervenes between the age of 15 and 50. Of course it testifies equally to the damage inflicted by all structural disease that obliterates the cavity, or prevents the movement, of the respiratory organ : and hence it affords no inference as to the true pathology of that state of virtual apnœa it may indicate. By carefully watching the person under experiment, you can easily see whether he is making use of the apparatus aright : or whether the deficiency he seems to offer is only due to carelessness or clumsiness on his part.

The *pulse* is one of those evidences of disease which we cause of the decrease ; the second the least so. This influence of excess of weight upon vital capacity has been formulated by Dr. Hutchinson (On the Spirometer, p. 9) in the statement, that where it amounts to an excess of seven per cent. it begins to reduce capacity ; and that every additional pound in excess, up to 35, takes off a cubic inch. I believe that practically, this formula would rarely mislead us ; although physiologically, it is most important to distinguish between the limited influence of mere weight, and the marked local effect of abdominal corpulence on the movements of the chest. The effect of age, even apart from that of the corpulence and the sedentary habits with which it is often associated, is very considerable. My own researches induce me to regard Dr. Hutchinson's estimate—a decrease of about 10 per cent. only from the adult average in advancing to the age of 70—as far too small for that which generally obtains even in healthy persons. Indeed, at this period of life, I should not consider any deficiency short of 30 or 40 per cent. a sufficient ground of rejection in individuals otherwise unexceptionable.

shall do well to notice specially in reference to Life Assurance.

An inquiry into the force and frequency of the pulse forms an indispensable adjunct to auscultation in the diagnosis of cardiac disease. By mere examination into these points we may sometimes not only determine that the heart is structurally diseased, but may even predict the exact seat of the cardiac lesion. The full jerking pulse of aortic regurgitation, and the small and thready one of mitral disease, are probably familiar to most of you. And as the pulse is to some extent an index of the effect of the cardiac lesion on the circulation generally, it is a far better guide to the constitutional mischief produced, than the mere nature and amount of abnormal sound. A noisy bellows-sound by no means necessarily implies a worse disease of the heart than may be associated with a blowing that is nearly inaudible. But any serious affection of the pulse—such as a feeble, rapid, and fluttering impulse in the artery, corresponding to a similarly altered beat of the heart—points with much greater certainty to a dangerous character of the disease.

This apparent digression leads me to the most frequent source of embarrassment in these examinations : namely, the difficulty of distinguishing between nervousness and disease.

The majority of the individuals who come before the Medical Examiner to a Life Office, become more or less excited under the inquiry. And in some, the amount of the excitement is very great. The pulse rises in frequency ;

the heart beats violently against the wall of the chest ; its sounds undergo considerable modifications ; the breathing is sometimes accelerated ; and, lastly, the general agitation of manner and gesture that accompanies these symptoms, occasionally amounts to downright tremor, and involuntary muscular movements.

The best method of detecting mere nervous excitement is a very simple one : namely, to prolong (or if need be, repeat) the interview until the agitation it produces has somewhat subsided. Thus, however excited a person may be on entering a room, and however violently and rapidly his pulse may be beating, you have but to keep your finger on his wrist, while you soothe his anxiety, or distract his attention to some other topic, and you will generally find that the pulse becomes slower, fuller, and more natural for several beats together, even if its agitation do not permanently subside. Or in a very nervous subject, you may repeat the examination of the pulse at a further stage of the interview with similar satisfactory results.

The same rule will apply to the effect of mental agitation on the impulse and sounds of the heart. The violent throbbing impulse, the rushing (if not blowing) first sound, and the concealment or partial suppression of the second sound, which such excitement can produce, generally diminish remarkably in the course of a few minutes, even where they do not altogether disappear. And I need hardly say that in these cases all evidence of dilatation is absent. In some instances, however, it is only by repeated examination, and by a careful collation of the history and habits,

as well as the symptoms, of the subject of inquiry, that we can satisfy ourselves of the merely nervous character of the other abnormal signs.

Excessive frequency or slowness of the pulse (which we may define as more than 85 or less than 50 per minute), is not common. Where present, we have to inquire whether it is known to have been habitual; and if so, for how long. It is only where it constitutes the sole symptom of a suspicious nature, and is utterly unconnected with any history of disease presumably cardiac (for instance, rheumatic fever in early life) that we can safely regard it as the mere peculiarity of a healthy individual. The healthy deviation, is, I think, more frequently towards a diminished than an increased rapidity: taking 70 as the mean frequency of the pulse per minute in the male adult, it certainly is so.*

It may not be uninteresting if I point out some other peculiarities in the pulse, as occasionally susceptible of easy explanation. The rate of nutrition and the supply of blood being both regulated by the exertion of a particular limb or organ, you will expect to find the pulse of the hale and robust working man what physicians of the school of Sangrado used to call "a strong jerking pulse, that would bear depletion." And conversely, the small and delicate hand that is never used for hard work has a proportionably "small" pulse. In like manner, a

* An abnormal slowness of pulse points our suspicion chiefly towards cerebral disease—probably (we might say) in the medulla oblongata in the vicinity of the roots of the pneumogastric nerve.

subcutaneous course of the radial artery or its volar branch, produces a pulse that has before now been mistaken for a "hard" one, and reduced by bleeding. Finally, within the last few months I have seen one or two instances in which the radial artery (and therefore the pulse) was without any single efficient representative in the fore-arm of one side.

The intermittent pulse is the last and most important variety to which we may allude. It is sometimes habitual from birth ; once or twice I have known it thus congenital in two or more healthy members of the same family. It is sometimes produced by green tea or tobacco ; sometimes (I think, more rarely) by dyspepsia independent of these deleterious agents. Lastly, it is sometimes an important element of relative old age ;—coinciding with a general degeneration of the arteries, or even preceding death by angina pectoris, or other allied diseases of the heart.

I am disposed to conjecture that, as a rule, the healthier or merely symptomatic varieties of intermittent pulse possess characters that would often serve as a more or less specific distinction. At least, of cases probably referrible to this category, the majority have shown me what were quite consentaneous beats of the whole heart, the only flaw of the cardiac action consisting in the prolongation of some single diastole ; prior to which the last (or at any rate, the penultimate) systole seemed much stronger than usual. While I have found the decayed or aged heart give irregular (and *quasi* divided) sounds, when carefully auscultated, though the pulsations seemed single at the wrist : and

exhibit intermissions that were not preceded by any unusually powerful impulse—oftener by deficient impulse—at the chest or along the radial artery. But I believe the exceptions to this rule are too numerous to allow much stress to be laid upon it.

On the whole, it may be laid down that this symptom always requires something like an explanation, even in young and healthy subjects. And I have been able to collect some interesting cases which seem to prove that where of comparatively recent occurrence, in persons either absolutely or relatively old, it is ample ground for an unconditional rejection, in the absence of every other morbid sign or symptom of cardiac disease. And where (as is often the case in old persons) it is accompanied by a tortuous and inelastic state of the arteries generally, or by a gouty history, or by appearances of habits that have been free (though not in the ordinary sense intemperate), this rule will still be more applicable.

Insanity is a state which, whether actually present, or likely to obtain, as shown by family or personal history, constitutes a grave objection to the acceptance of a Life.

It has indeed been doubted how far insanity ought to be regarded as a disease shortening life. And I presume the numbers of lunatics who attain old age have been supposed to countenance this doubt.

But all researches into the mortality of lunatics conclusively show that their probabilities of life are much less than those of some persons at corresponding ages. And when we consider the large proportion of cases in

which these mental maladies are associated with visible lesions of one of the organs most essential to life ; the frequency with which such unhappy persons commit suicide ; and the numberless chances of accident, privations, or exposure, to which the state of their intellect renders them liable ; we shall not be surprised to find that their deaths far (six times) exceed the average mortality of the community at large.

I cannot suggest any useful classification or distinction of the various forms of mental alienation with respect to Life Assurance. The more obviously structural diseases of the brain would perhaps correspond to the maximum of risk. But practically the causes of death just hinted at often render fatal cases in which, as a matter of mere medical prognosis, such a result might perhaps have least been expected. Careful medical and general treatment would probably afford the best chance of longevity ; but these are contingencies we have little right to calculate.

It is, however, important to beware of attaching too much importance to all cases of insanity that may be detected in the family history of persons who are themselves free from any suspicion of the malady. A close inquiry has often shown me that the reported insanity of some older relative was really little more than that mitigated form of senile dementia which so frequently precedes death by old age. And I need hardly say that this variety of mental decrepitude is no valid objection to the Life of other members of a family ; indeed, supposing it only to occur at an advanced age, is rather in favour of their longevity.

The *state of the uterine functions* will not require much allusion. The non-appearance of the catamenia at the proper age, or their abnormal interruption for a longer or shorter period during any part of menstrual life, would constitute a very important symptom ; but one which would require to be carefully collated with the other circumstances of the case, before any definite value could be assigned to it. Impending pregnancy does not much influence Assurances effected for the whole term of life ; save where there are special reasons (such as age or deformity) for expecting parturition to be peculiarly dangerous in the person under examination. Here (except in primiparæ) the character of previous labours will of course afford valuable aid to our conjectures. In rare instances, however, the Assurance is proposed, if not especially with reference to parturition, at any rate for a limited period of time that is likely to include this event. Here it is usual (and obviously not unfair) to charge a somewhat higher rate to cover the increased risk which the act of childbirth implies ; especially where, as a first parturition, it offers greater danger than any subsequent accouchement. Apart from these exceptions, we are bound to remember that all the perils decreed to the female leave her life (as a whole) rather superior to that of the male of corresponding age :—in other words, that the pain and danger of childbirth do not bring about an excess of mortality at all approaching that which results from the greater exposure, toil, and intemperance of the stronger sex.

Lastly, it is the combination of the three different kinds

of information about which we have been speaking that affords the basis upon which you found your opinion as to the acceptance or rejection of any given proposal. And it is just this, the most difficult part of your duty, respecting which I can give you least assistance. For that basis may either be a sum, or a difference, of many or all of these constituents. In other words, it may be sometimes made up of a variety of favourable or unfavourable circumstances, all tending one way, and therefore leaving you little doubt that it is your duty to accept or reject respectively. But it will more frequently happen that the unfavourable circumstances are so opposed by favourable ones, as to leave you in doubt whether they are not neutralised and practically removed, leaving a clear balance of facts in favour of the proposal.

But even this coarse numerical illustration leaves unnoticed the chief difficulty of such decisions: namely—What degree of stringency are we to use? What is our standard of health; or conversely, our ground of rejection?

Here again I can only confess my inability to define by words the exact boundary between a Life that we may accept, and one that we must decline. Even in practice such decisions, as difficult as they are important, often tax all that we have of reason and judgment. Indeed they are frequently based on considerations so many and complex, that we have no right to judge harshly of any conscientious opinion, however much we may personally differ from it.

But it is your duty, I think, to distinguish your report

to any Life Office into two kinds of information ; which, in every branch of knowledge, it should always be our endeavour to keep apart from each other—matters of opinion, and matters of fact. In respect to the first, we are all liable to err. In respect to the second, there is (or ought to be) a tolerably strict agreement between the evidence of all persons who possess those senses which are the natural means of acquiring information, educated to the particular inquiry. In other words, as regards the facts elicited by a personal examination, you have no business to err. Reasonable skill and care are almost all that is required of you, to ascertain with moderate accuracy the various circumstances just alluded to. And supposing you have done this, I do not say that your opinion is immaterial, but I do say that one of the chief and most important parts of your duty to the Office that employs you is fulfilled.

I am the more anxious to be explicit on this head, because it is one on which great misapprehension seems to prevail amongst the local Medical Referees of Assurance Societies. They occasionally appear to forget that something more than an opinion is wanted of them ; that (at least in many Offices) the facts on which they found that opinion are regarded as equally important ; that, in short, their opinion is generally reviewed by a Board of Directors, as well as by another medical referee, whose decision is greatly aided by a knowledge of the same circumstances that have been necessary to form their own.

Hence I will take the liberty of advising you to return

answers to *all* the questions transmitted to you, except where they are evidently unanswerable and absurd. It is a great convenience, even as regards the memory, to have a definite form prescribed to you. It is sometimes a still greater advantage to be able to assure an irritable subject of examination that your proceeding (far from being peculiar to him or yourself) is a routine which you have no choice but to accede to ; and that any question which he may be disposed to resent as impertinent is so pertinent, as to form a specific part of your printed instructions. And finally, I think it becomes our profession to show that it really has a broad and common basis of diagnostic skill :—a catholicity which the various discordant systems of quackery can never lay claim to :—a code of signals respecting disease and health which none but the educated practitioner can appreciate ; and which, therefore, it is no way derogatory to him to repeat, as well as to interpret.

I append to these brief allusions a Form of Examination which, in the absence of any prescribed list of questions, you may perhaps find it useful to adopt. Without venturing to regard it as perfect, I think you will find that it so far includes most of the topics we have had to advert to, as to give little chance of anything really important remaining unknown to you, supposing its various questions are propounded with skill on the part of the examiner, and answered with good faith on that of the subject of inquiry.

APPENDIX.

DATE. Name, profession, residence of the person examined.

Apparent age, bodily activity.

Temperance, past and present: nature and amount of alcoholic liquid usually taken.

Father, mother, brothers, and sisters: if living, what age; if dead, cause of death, age at death, respectively.

Any instances of consumption or insanity amongst the above relatives, the uncles, aunts, grandfathers, or grandmothers.

If ever attended medically. Specify the date, duration, and character of maladies hitherto experienced.*

Aspect, complexion, habit of body. Weight (in ordinary dress).

Shape of the chest: its movements in breathing: vital capacity.

Frequency of the respiratory and cardiac sounds. Character as ascertained by auscultation.

State of the pulse. Appearance of the tongue. Vaccination.

In the female, past and present state of uterine functions: character of confinements, if any.

* The proposal of Assurance usually contains a declaration with reference to certain diseases (hæmoptysis, gout, fits, hernia, habitual cough, &c.), such as would either specially affect the decision, or guide the inquiry, of the Medical Examiner.

APPENDIX

LONDON :

G. J. PALMER, SAVOY STREET, STRAND.

THE

26

EDUCATION OF THE IMBECILE,

AND THE

IMPROVEMENT OF INVALID YOUTH.

Jesus answered, Neither hath this man sinned, nor his parents ; but that the works of God should be made manifest in him.—ST JOHN ix. 3.

Published for Behoof of the

HOME AND SCHOOL FOR INVALID AND IMBECILE CHILDREN,

10 GAYFIELD SQUARE, EDINBURGH.

1856.

SUMMARY.

	PAGE
Introductory Remarks, - - - - -	3
Institutions on the Continent :—	
France, - - - - -	6
Switzerland, - - - - -	7
Denmark, &c. - - - - -	7
Institutions in America, - - - - -	8
Institutions in England :—	
Bath, - - - - -	11
London, &c. - - - - -	12
Institutions in Scotland :—	
Baldovan, - - - - -	15
Edinburgh, - - - - -	17

THE EDUCATION OF THE IMBECILE.

IT is, we presume, within the recollection of many of our readers, that we were once accustomed to see running at large upon our streets, men and women, as well as boys and girls, in a state of idiocy, in various degrees. It is not more than thirty-five years since the parish authorities began to confine these within the walls of workhouses. Those who remember the disgusting objects and shameful scenes presented and occasioned by the miserable beings who so frequently, and, very often, most inopportunately, intruded themselves upon our observation, can estimate the benefit conferred upon society at large by the withdrawal from the streets of such nuisances. But it is painful to think of poor children, and others, whose instincts impel them to activity, being imprisoned, and treated as if they were criminals. Still more distressing is it to think of their having hitherto been allowed (for the most part) to pass their time in complete idleness. It is to be feared that, in very few instances, have any attempts been made to cultivate the feeble powers of mind and body which exist in most idiots, and are educible by proper training. They have been unjustly regarded as more useless than beasts; and, alas! have too often been treated with *more indifference*, not to say *cruelty*, than dogs or swine. While, therefore, we owe much gratitude to those who rid our public thoroughfares of the dirty, ragged, drivelling, mischievous creatures, whose very aspect shocked the sensitive, and whose weaknesses and bad habits excited the sport-loving boys to play all sorts of tricks upon them, to the great annoyance, and even personal danger of passers by—we owe *much more* to those who have, with admirable patience and perseverance, led the way in befriending the poor idiot, in bringing the blessings of education and of medicine, combined, to bear upon him, and who have (with the Divine blessing upon their labours of love) succeeded in shewing that there are not a few, formerly regarded as wholly unimprovable, who are susceptible of being trained and rendered useful members of society, although in humble spheres.

In his thesis on Alpine fatuity, (that is Swiss Cretinism, which is one of the worst forms of idiocy), published here in 1803, Dr Abercrombie distinctly pointed out the feasibility of attempting to do something effectively to ameliorate the lamentable condition of the Cretins, by bringing sanitary influences to bear upon them in infancy and childhood. The French physician, Fodéré, and the German Wenzel, had previously

advanced similar views, which were in some measure acted on in Switzerland, where, in the Vallais, particularly at Sion, there was much improvement secured, chiefly by moving children afflicted with cretinism to the higher grounds: and, in 1839, when Dr Guggenbühl began his beneficent labours in the Institution on the Abendberg, near Interlaken, they were systematically reduced to practice.

The expediency of subjecting all fatuous and imbecile children to medical treatment and educational training was strongly advocated by Dr Poole, (then of Edinburgh, now of Aberdeen) in a treatise on Education, which appeared first in 1819, as an article in the *Encyclopædia Edinensis*, and was, in 1825, published as a separate volume.

The following extracts from Dr Poole's book will shew how distinctly he perceived the work to be done, and how to do it:—

“What, but the most culpable indifference, can account for those appalling and truly heart-rending spectacles, so often witnessed in almost every village, and, still more marvellously, in the streets of our large cities? Is it as a foil, one might ask, or in compliment to the usually enjoyed proportion of intellect, that the poor idiot is permitted, if not encouraged, by the carelessness of his nominal keepers, and the dole of sickening humanity, in his objectless and staring perambulations among us? If this be the motive, why is so important a personage, as he must necessarily be esteemed, allowed to become a recipient of every abuse and cruelty which wantonness or fiend-like perversity thinks proper to heap upon him? Is he not entitled, if his visitations are either profitable or tolerable, to, at least, the humane treatment which our laws award to the brute creation? May not even his exterior resemblance to our species be somewhat enhanced by his being furnished with a decent garb to cover his nakedness, and protect him from the inclemency of the weather, or the harsher inclemencies of an insulting and a prostituted superiority? Finally, is there not a possibility, if he must go at large, of guarding him against brutality and outrage, with as much care, at least, as is manifested in the preservation of property?”

“In whatever manner these questions, or any similar ones, may be disposed of, it is certain that the evil is a reproach and a nuisance to society; and the proper remedy for it demands yet more profound examination, more ample command of means, and more extensive co-operation than may at first sight be imagined necessary. Nothing could be easier, it is true, than the alleviation, if not the entire removal of its most obnoxious symptoms. The fiat of authority might compel, under severe penalties, to be inflicted on near relatives, or, failing them, the official guardians of our municipal comforts, as in another case of deplorable misfortune, the entire disappearance and confinement of those helpless creatures, whose history has hitherto belied the splendid dream of human perfectibility. But, admitting the efficacy and expediency of legislative interference, is it fitting for an age of improvement and benevolence, to allow the success of such interference to be the ultimatum of what is desirable and practicable on the subject? Would it be, ought it to be, enough for us, that these unfortunates were removed from our sight? We answer—no. It is with some anxiety and commendable regard to decency and feeling, that we dispose of the dead bodies of our fellow-men. Shall we be less concerned about the disposal of those living beings, whose weakness ought to call forth our compassion in the very proportion that it renders them burdensome to society? That there prevails a great degree of negligence as to their condition and comfort, will appear very obvious, when we compare the little attention which has as yet been shewn them collectively, with the extensive plans

almost generally devised in this country, in favour of every class of unfortunates. Let us confine ourselves to a single city. In Edinburgh, we have a Magdalen Asylum, a Lunatic Asylum, a Blind Asylum, an Institution for the Deaf and Dumb, a House of Industry, and a great variety of establishments for sundry benevolent purposes. But, what is done in it—what has ever been attempted to be done in it—in behalf of that by no means small class of helpless creatures, whom the hand of nature appears to have cast around us as if to humble our pride, and to demonstrate our dependence, for much of what we deem our excellence, on the laws of the material world? The poor-houses, it is true, usually contain some of these unfortunate beings. But many of them are allowed to wander at large; and those, again, who are lodged there, are, with few exceptions, precluded, by the very circumstances of the establishments, and by the influence of a very general opinion as to their total incapacity for education, from all chance or possibility of being ever useful to society. We are not certain, indeed, that there is a single institution in Great Britain, exclusively, professedly, and systematically appropriated to this class of defectives. The reason of this neglect seems to be a persuasion, that there is only one species of the disease or evil under which they labour, and that this is entirely and for ever incurable. Some inquiry at least ought to be made before allowing such a conclusion; and even were this conclusion better founded than it is, there would, nevertheless, exist some ground for charging the practical consequences, as they are now displayed, with untenderness and impolicy. But it is contended, that the conclusion, in place of being warranted by facts, is disproved by them: that the mental defects of the individuals in question, so far from being all alike, are immensely dissimilar; that, in many cases, there is reason for imagining *the principle of substitution*, by which one faculty or sense is made to answer in some degree for another, might serve as the basis of successful education: and that it is possible, the very worst cases ever met with would yield so far to science and industry, as to vindicate and reward the patience and ingenuity bestowed on them. All that is meant to be given on the subject in this place are a few observations, which, it is thought, if extended and modified by further inquiry, might lead some benevolent minds to the adoption of a plan calculated to lessen the evil complained of.”

“Where there are many manifest indications of this imbecility, it is recommended to have recourse to medical skill, for the purpose of putting into practice every means calculated to invigorate the constitution. Few persons, perhaps, are aware of the different effects produced on the state of both the intellectual and moral powers by peculiarities in diet and regimen. This is a subject on which some curious information might be obtained from those persons who are in the habit of *training* for sundry athletic purposes. One person, for example, who has had much experience in this way, Mr Jackson, has, positively, and we think most justly asserted, that the faculties of the mind are as distinctly improved as the condition of the bodily health, by the process now alluded to.” “It is surely obvious, then, there is ground for employing medical advice in cases of general imbecility presenting in early life; and there cannot be a doubt, that cases of this kind, which are allowed by despair to become confirmed and deteriorated, might have been relieved by professional interference. Who has not witnessed the expressionless inane countenance, perfectly indicative of the internal state, in a person just recovering from a fever, or reduced by poverty and hunger? Is it not quite conceivable, that a condition of the system somewhat analogous to this, but dependent on causes which have operated before birth, and continued to operate even for years afterwards, might admit of an alteration and improvement, similar to what occurs in these cases,

on the restoration of wonted health? It would not be difficult to demonstrate the truth of these remarks, and to confirm the hopes they are intended to excite, by an appeal to examples of infantine weakness followed by manly vigour. Instances are not wanting of great ability succeeding to long continued feebleness of constitution, which did not even seem to promise mediocrity. Gibbon and Sheridan are among the latest of this kind. In these cases, in addition to the employment of medical aid, it is of the utmost consequence to proportion the mental exercise to the mental strength. This may be so little as to render every sort of study absolutely improper, and every employment of the senses, beyond a certain degree, injurious. In short, the individual must be treated at first much as a plant, and that also a sickly one, with simple nourishment and exposure to good air. The next step is that of merely animal life, as characterized by sensations and perceptions, which will require suitable exertion. The manifestation of the intellectual or moral powers is an advancement of a still more promising nature, and may be hailed as the basis of some moderate endeavours towards ordinary education. But, throughout the whole process, great caution is necessary to guard against any overstretch of power in any direction, which would be sure to occasion a relapse, and, perhaps, entirely to prevent recovery." "But, enough, perhaps, has been said to point out the possibility of distinguishing differences in the class of defectives now treated of, and to confirm the idea, that something more might be done for many, if not all of them, than has usually been attempted. The philosopher, for such he should require to be, who should undertake to investigate the whole subject, and to suggest a suitable plan of remedy or alleviation, would perform an acceptable service to science, and merit the gratitude of mankind."

It is humbling to reflect that so long a period as thirty years should have been allowed to elapse before anything was done in Scotland to reduce to practice the views thus expressed so well by Dr Poole. Elsewhere, however, they were soon acted on.

IN FRANCE.—It was in Paris that the first thorough educational experiment was made on idiots. In 1828, M. Ferrus, chief physician of the Asylum of the Bicêtre, organized a school for his fatuous patients, and caused them to be taught habits of order and industry, and to be instructed (as far as possible) in reading, writing, arithmetic, and gymnastics.

The success met with, led Messrs Voisin, Falret, and Leuret, to extend the system of instruction; and, latterly, all the educable patients in the hospital referred to have been systematically subjected to such means as are fitted to rouse and to invigorate their dormant and feeble faculties.

After witnessing the improvement in the condition of some of the objects of treatment in these schools of the Bicêtre, in 1844, Dr Conolly of London thus expressed himself:—"It is difficult to avoid falling into the language of enthusiasm on beholding such an apparent miracle; but the means of its performance are simple, demanding only that rare perseverance, (without which nothing good or great is ever effected,) and suitable space, and local arrangements, adapted to the conservation of the health and safety of the pupils; the establishment of cleanly habits; the presenting them with objects for the exercise of their faculties of sense, motion, and intellect, and the promotion of good feeling, and a cheerful, active disposition."

At Laforce, in the department of the Dordogne, Pastor Bost has recently instituted a Bethesda Asylum, which is intended to receive female children who are idiotic, blind, deformed, or afflicted with incurable chronic disorders.

The subject of the treatment of idiocy lately engaged the attention of the Academy of Medicine at Paris; a paper on it having been read before that body in July last, by M. Delasiauve, physician in charge of the epileptics and idiots at Bicêtre. This author homologates the axiom of Voisin, regarding the object of the education of the idiot, namely, *to develop what already exists*, or, as we should express it more generally here, to discover the laws of association or suggestion, which may be acted on, although others are defective. He announces a classification of idiots with reference to their various degrees of aptitude for education, and suggests some improvements, both of a general and special kind, which he thinks ought to be introduced into establishments devoted to the cure of idiocy.

IN SWITZERLAND.—Dr Guggenbühl's earnest efforts for the good of the poor Cretins, carried on for the last fifteen years in his alpine retreat, have done much to fix public attention on the possibility of ameliorating the sad condition of those unfortunates. We need not at present dwell on the details of Dr Guggenbühl's experience, as it is not perfectly applicable to the work we are called on to undertake in this country; but we *must* advert to the good example of devotedness to a work demanding so much self-denial and patience, which that excellent person has been enabled to set before us.

A pamphlet published by the late Dr William Twining of London,¹ in 1843, was the means of introducing the enterprise of Dr Guggenbühl to the notice of the British public. Considerable interest was excited, and money was readily raised in aid of the Swiss work.

In 1846 a notice of Dr Guggenbühl's hospice, was published in *Chambers' Edinburgh Journal*. This was reprinted as a separate pamphlet, and was the means of exciting no small interest in the object here. It was, we believe, written by the late Madame Gaussen of Geneva, a native of Scotland, who, for many years, took the greatest interest in, and did much to promote the welfare of, the Abendberg hospital. Another tract from her pen, which was forwarded to this country by Dr Guggenbühl for publication, appeared in 1848, with an introduction by Dr Coldstream of this city, and supplies the most complete and interesting account of this now famous institution which we possess.²

The most recent information on the subject is given in the prize thesis of Dr G. S. Blackie, on Cretins and Cretinism, which has been lately published in this city.

IN DENMARK, &c.—Some distinguished members of the medical pro-

¹ Some Account of Cretinism, and the Institution for its Cure on the Abendberg.

² The Abendberg, an Alpine retreat for the treatment of Infant Cretins. Edinburgh: Kennedy.

fession in Denmark, Prussia, Saxony, and Wurtemberg, have, more or less recently, devoted themselves to the forwarding of this good work in various ways. For example, in Copenhagen, the learned Professor of Physiology in the University, Dr Eschricht, published last year an interesting treatise "On the Possibility of Educating Idiot Children to become useful members of Society." In the same city, Dr Hybertz has published an elaborate statistical inquiry into the extent to which idiocy prevails in the various countries of Europe; and has also devoted himself to the treatment of a certain number of children affected with it. Mr Moldenhawer, also, in the Danish capital, has commenced a work of the same kind; while in Schleswig, Dr Hansen is similarly employed. Dr Särgert of Berlin, Director of the Royal Institution for the Deaf and Dumb in that city, has written much and well on the treatment of idiocy, and has, for several years, laboured personally in training imbecile children. At Bendorf, near Coblenz, Dr Erlenmeyer has a small establishment of the same kind. In Saxony, Dr Kern at Leipsic, and Dr Gläsche at Hubertsburg, near Dresden; in Wurtemberg, Dr Müller at Winterbach, and Dr Zimmer at Mariaberg,—are all in charge of institutions for treating idiocy, varying in extent.

A proof of the zeal in this good cause which exists in Denmark, has lately been shewn in the mission of a gentleman, in all respects well qualified, charged by the government of that country to visit, and report upon, all the institutions for the cure of idiocy in Europe. This commissioner, (Mr John Moldenhawer, who published last year an account of the German establishments), after having visited the English schools, came to Edinburgh, in expectation of seeing something worthy of his attention, and was disappointed. Dundee alone, in all Scotland, could furnish him with the material for his report.

IN AMERICA.—In 1845, the work was begun in the United States, and that in a very thorough manner. The statistics of idiocy were carefully taken up in the state of Massachusetts, and presented to the Senate along with a plan for training and teaching a certain number of patients, and *a grant of money from the public purse* was made for the establishment of a well-appointed institution. This has been presided over since its formation by the well-known Dr Howe, who has published some most interesting reports of his progress. Take the following as a *resumé* of the results attained:—

Several of the pupil-patients, who were in a condition of hopeless idiocy, have gained some really useful knowledge, the most of them have become cleanly, decent, docile, industrious; *all* have improved in personal appearance and habits, in general health, in vigour, and activity of body, and are happier and better, in consequence of the efforts made in their behalf. Dr Howe, at the outset, had entire faith in the practicability of his ideas, and *his faith has now become assurance*. This assurance is shared in by the parents of the children, and by many who have watched the trial.

Besides ten beneficiaries of the state, eight private pupils have been received into the institution; some of these are from wealthy families

out of the state, who are willing to pay a high price for the advantages thus secured.

Two cases are described, in order to show by example what has been done by the school. The first is of a boy, who may be taken as a type of the idiot proper:—

“He is a congenital idiot. Before coming to the school he knew nothing, could do nothing, observed not the first rules of decency, was utterly helpless, and, doubtless, under the usual system of neglect, would have remained so; or, as is universally the case with neglected idiots, would have become, if possible, worse. This child now takes the visitor's hand, talks, articulates distinctly, and, going to the letter-frame upon the table, not only selects and arranges the letters to speak any short word, but, without aid, also forms the sentence, ‘Our Father which art in heaven, hallowed be thy name,’—words which are now only familiar to the eye of the idiot child, but which may yet penetrate his soul. His parents have been touched by the beautiful change. Pouring forth his delight at the progress of his son, the father said,—‘George now *plays with* the other boys; he *plays like* the other boys.’”

The second case is one selected from that large class of persons who are born with a certain capacity, and who, under proper treatment, would have manifested a moderate share of intellect, but who have been badly managed, and become idiotic, or have been misunderstood and considered idiotic:—

“This boy was a frightful sight to observe. He could not stand, or even sit erect. He had no command of his limbs, not even so much as an infant of three months. He is described as lying like a jelly-fish, as though his body were a mass of flesh, without bones. He could not chew solid food, but was fed on milk, of which he consumed an inordinate quantity. This boy is so changed that he is no longer regarded as an idiot. He is decent in all his habits, and tidy in his appearance; his countenance is bright and pleasing; he can sit at table and feed himself with a knife and fork; he shakes hands, is pleased and smiles, and can readily read.”

Such are two of the cases; others, equally gratifying, might be mentioned. Dr Howe considers the experiment to have been entirely successful; and that it has demonstrated, that among these unfortunates, left to grovel in the lowest idiocy, there are many who can be redeemed, and rendered comparatively intelligent, happy, and useful. How far they can be elevated, and to what extent they can be educated, can only be shown by the experience of the future; but, certainly, the experience of the past does not justify the entertainment of meagre expectations. Our American friends fully realize the extent of their mission. They do not limit themselves to the improvement of the intellect and bodily condition; the still harder task is attempted of appealing to the moral sense, and drawing out what little capacity there may exist for comprehending right, for exercising conscience, and for developing the religious sentiments.

The promoters of the effort for the improvement of the idiot in America calculate on many important indirect results of their labours, not the least of which is the diffusing of greater knowledge of idiocy throughout the community, and, as a consequence, the saving of many children

who really have mental capacity, from being condemned as incapable of improvement. A case in illustration is so impressive that we must present it to our readers:—

“Michael Maher, aged thirteen. This boy was quite unmanageable by any means within the reach of his father or friends. They knew no way to make him obey but that of force or blows. He was formerly a tolerably bright boy, but he had been in this condition for years, and was rapidly growing worse. He seemed to live in continual terror, and seldom spoke a word. The first time that I heard him utter a word was one day when his father took hold of him to make him obey some command, upon which, with his knees fairly knocking, and his body trembling all over, he screamed convulsively,—‘Will good boy—will good boy.’ This was enough to show that, whatever may have been the cause of his strange condition, the daily treatment he was receiving was gradually crushing his feeble intellect, and would tend to drive him into hopeless idiocy or insanity, and yet his father was a sober, well-meaning man, and not a cruel parent. He simply did not know how to govern his own feelings, nor how to train those of his unfortunate child. The boy, therefore, was taken into our school at once. He is still a little shy, but he has lost all the appearance of terror; he not only comes readily when called, but often goes up to those belonging to the home, and puts his arms affectionately about them, and returns their caresses. He takes his place in the class, and strives to imitate all the motions of the scholars, and obey the signs of the teacher. He can select the letters of the alphabet, and understands a few words. He is obedient and docile, and tries hard to learn with the others. He is affectionate, and much gratified by any mark of praise or approval. He begins to talk, and is rapidly improving in every respect. The following letter from Mr Downer, who brought him to the institution, will show how much, in the opinion of that gentleman, he has improved under the treatment he has received in his new home. The improvement is mainly attributable to the spirit of gentleness which pervades the household. This has quieted all his terrors, and soothed his spirit, so that he is able to give attention to the judicious instruction which Mr Richards imparts to him.

“DR S. G. HOWE.

“BOSTON, Feb. 14, 1850.

“DEAR SIR,—I availed myself to-day of your invitation to visit the institution for the benefit of the feeble-minded, that I might have an opportunity of witnessing the improvement (if any) of the boy Michael Maher, who has been enjoying its privileges; but I hardly know how to comply with your request to communicate how his present appearance struck me, as compared with that which he exhibited before being placed there. When I remember his wild and almost frantic demeanour when approached by any one, and the apparent impossibility of communicating with him, and now see him standing in his class, playing with his fellows, and willingly and familiarly approaching me, examining what I give him; and when I see him already selecting articles named by his teacher, and even correctly pronouncing some words printed on cards, improvement does not convey the idea presented to my mind—it is *creation*—it is making him anew. I also noticed an entire change in his manner of moving his hands, and whole body. In truth, as he stood in his class, it was with difficulty I recognised him, so changed was his appearance. I was struck particularly by the fresh and healthy appearance of his skin and complexion, which was formerly pale and haggard.

“If, sir, he is a fair sample of what training and education can do for idiots, I can only say, God speed you in your endeavours to build up such an institution—it has but to be known to be appreciated, and to have the

views of its founders carried into successful operation.—I remain very truly, &c.,
SAMUEL DOWNER, JR."

In Philadelphia and New York also, more recently, asylums or schools for the defective have been instituted, and are now in successful operation.

A very important statistical document was presented last year to the Senate of Massachusetts,—very special care had been taken to procure a complete and trustworthy report upon the Insanity and Idiocy existing in the Commonwealth—with the view of devising efficient means for the alleviation of the growing evil. We are aware of no reason why there should be a larger proportion of the insane and idiot to the general population in Massachusetts than in any other portion of the civilized world, we are therefore surprized by the general result of this thorough inquiry,—and if the same proportion is to be found in this country, the sooner the facts are accurately ascertained the better at once for the poor afflicted ones and for the communities who have to provide for them. In the State of Massachusetts, with a population of 1,124,676, there were found 2,632 insane persons, and 1,087 idiots—together, 3,719,—thus giving 1 lunatic to 427, 1 idiot to 1,034, and of both, 1 in 302 of the general population.

IN ENGLAND.—In 1846, two ladies at Bath (Misses White) instituted, at their own charge, a small establishment for the reception and training of idiot children. This was the first in Britain. It is now supported—at least in part—by the contributions of the charitable; and, judging from the reports which have been published, it has been the means of doing much good.

We present some remarks, and a few of the cases recorded in one of the last reports of this school:—

"The children are instructed, as their capabilities permit, in reading, writing, arithmetic, and geography; and their acquaintance with external objects extended and improved. Religious knowledge and moral culture are directly or indirectly kept in view in every pursuit. Control of temper, obedience, order, and kindness to each other, are steadily inculcated; and sufficient progress has been made in these respects to justify much hope for their future conduct. The children show considerable affection for their teachers, and are, in general, happy and contented. Corporal punishment is not permitted in the establishment, but strict obedience is endeavoured to be enforced by means of moral influence.

"A brief notice of two or three cases may be desirable, as showing the working of the system.

"E. P. was ten years of age when admitted; idiotic from birth. His appearance and bearing gave evidence of great mental deficiency. He showed much reluctance to be instructed, and his memory was so little retentive that it required much persevering effort before any real progress was made. An additional impediment was found in the difficulty of controlling his attention. He did not seem to have any power over the organ of sight, nor sufficient mental capacity to fix his thoughts on any given subject, however simple. This, of course, much retarded his progress. Three times did he appear to be improving in reading and writing, and as often was he obliged to be put back to the very rudiments of these acquirements; the

power he had for a time possessed appeared suddenly to leave him. But, by the exercise of patience and ingenuity, he was again led on to some degree of proficiency, and he has now been enabled to write two letters to his mother, who had formerly assured his teachers, that any attempt to teach him writing would fail, as she had herself used every endeavour to instruct him, without success. He has now been two years in the institution, and his mind has opened to the reception of much general knowledge, and there is no doubt but he will be capable of being instructed in some trade. A remarkable improvement has taken place in this child's disposition, which, from being extremely selfish and unyielding, has become gentle, liberal, and considerate; he shows much kindness to his younger school fellows, whom he will at all times assist and protect, as far as lies in his power.

"S. M., deficient from birth, nine years old when admitted, perfectly ignorant and untrained, but gentle and tractable. She required much stimulating before she would take an interest in any employment. She has been one year at the institution. Her sluggishness has been in a great measure overcome, and her progress is now most satisfactory. Her attention has been much directed to needlework and house employments, in both of which she promises to excel. From having been allowed much licence at home there was some difficulty in bringing her into habits of obedience; but she is now so steady and orderly as to cause little trouble, and even to encourage a hope that, if spared, she will prove a useful servant in the establishment.

"H. B., aged eight at the time of his admission; was violent and unmanageable to a great degree; subject to fits of rage, during which he would throw himself on the floor, kicking and screaming, until exhausted. In walking through the streets he was with difficulty restrained from rushing into the shops, and seizing everything he saw in them, and has frequently attracted the notice of those passing by. He could only articulate a few broken sentences; nor could he give an answer to a question. He is now able to read and write fairly, can repeat many texts of Scripture, hymns, &c., and is perfectly orderly when walking, asking questions as to what he sees passing around him. His temper is equally improved.

"G. C. was nine at the time of her admission. She was so unruly at home as to be generally tied to the table, which she would drag about the room. She is now perfectly under control; reads, writes, and works at her needle; assists also at household work, washing and dressing the younger children.

"The success of the Bath institution will afford encouragement to others to commence the same work elsewhere; and, surely, no one can be considered more necessary—more charitable. The experience of the past affords strong hope for the future, if only means be supplied to carry out the plans now in contemplation. These are, in the first place, to secure a large and more commodious dwelling; and, secondly, thoroughly to instruct the inmates, according to their capacity, in various trades and employments, by which they may be able hereafter to support, or assist to support, themselves. For, it must be remembered, this institution is strictly for education and training, and not intended to be an asylum or permanent abode."

The most important step that has yet been taken in this work was the formation of a large society in London in 1847, for the establishment and support of an asylum for idiots. The prime mover in this scheme was the Rev. Dr Andrew Reed of Hackney, a well-known and much respected Congregationalist minister. He still acts as honorary secretary, and has had the satisfaction of seeing the society, and its several establishments, increase and prosper to an extent which proves at

once the need that existed for such institutions, and the benefits which already they have been instrumental in conferring upon society. Not less remarkable also is the distinguished patronage which the society has secured. Foremost in which appears Her Majesty, and among the Presidents, Vice-presidents, and Board of Management, we find an array of noble and exalted individuals, which is the best guarantee that the work is worthy of general sympathy and support. The very first report contained the following statement:—

“Never has an infant charity made such progress in so short a period. Never has a board of similar character taken up such serious responsibilities; and never, perhaps, has any one been so sustained by public sympathy;” . . . “The benefit has already extended beyond the sphere of our exertions. The tone of public feeling in relation to the poor idiot has been raised. He never can again be the forlorn, abandoned, scorned, imprisoned creature he once was.”

The first asylum of this society was established at Highgate, in an old mansion-house, surrounded by gardens and policies of moderate extent. In 1850, Mr Peto (now Sir Samuel Morton Peto, Bart.), presented Essex Hall, a large house at Colchester, to be used as a supplementary institution. Both houses were soon filled. Three years ago, a movement was begun with a view to raise a sum of money sufficient to erect a large asylum. This was so successful, that already a most extensive and magnificent structure has been reared at Red Hill, Reigate, which has cost upwards of L.30,000. It is intended for the accommodation of a family of at least 500 persons, and is now, we believe, quite ready for their reception. On the occupation of the new asylum by those for whom it has been erected, it is expected that Essex Hall will be elevated into an independent idiot asylum for the four eastern counties. We had the pleasure of visiting the asylum at Highgate in 1851, and were highly gratified by the proofs everywhere manifested of love being the animating principle of the whole, as well as of the wonderful success accorded to the labours of the superintendent and teachers. In one of their reports, the directors of the London asylum thus state the principles on which the training of the pupil-patients is founded:—

“The board have acted on the principle, that *always there is mind, and that, in itself, it is perfect*; and that it has imperfect and defective expression from imperfect or deranged organization. The education, therefore, has been principally physical; and the board have availed themselves of separation, and of classification, in conducting it. They have sought for the particular defect, and begun with it. They have educated the eye, the ear, the mouth, the brain, the muscle, the limb; and have thus endeavoured to reach the better portion of our nature, that it also might be trained to moral and spiritual exercises.”

We quote from one of the latest reports the narratives of a few cases illustrative of the benefit of the training in the London institution:—

“———, a little girl, aged three years, admitted *June*, 1850. This case remarkably illustrates the advantage of very early treatment. She was quite helpless; of dirty habits; could not even stand alone; and it seemed impossible to fix her attention. *April*, 1851. She has improved surpris-

ingly. Her health is better, her limbs stronger, she can walk alone, has become intelligent, notices what is going on, knows the persons around her, and is still making satisfactory progress.

"M. L., a boy, aged thirteen years, admitted *July*, 1848, a congenital idiot; was not able to say two words consecutively; used bad language, as far as his imperfect articulation would permit; was deceitful, and could neither write, draw, nor sing. *April*, 1853. He can repeat any sentence; has given up the use of improper language; he can read, write, sing, and draw well; and has become very expert as a tailor."

"F. W., a boy, aged fourteen years; admitted *May*, 1851; could not read, write, draw, nor do anything; he was said to be beyond improvement; was very spirited, and ran away from home several times. *April*, 1853. For eighteen months after his entrance all efforts appeared useless, and patience was almost exhausted, as he did not know a single letter. Now he knows most of the alphabet, writes in a copy-book, is obedient and tractable, and has made several pairs of shoes and slippers."

"B. A., a young man, aged thirty-one years; admitted *March*, 1850; was very morose, solitary, incorrect in his habits; one of the most trying cases in the house. *April*, 1854. He is perfectly correct in his habits; often speaks; he is very amiable, and is very fond of his companions, some of the younger of whom he takes pleasure in leading about."

"B. T., a boy, aged fifteen years, admitted *October*, 1852; was the sport of all the boys in the village; was afraid of a stranger; would not speak to any one, even to his friends; he appeared quite hopeless. *April*, 1854. He did not speak for four months after admission; was constantly moping. He has now found that he is with friends, and is gaining courage, and can speak well; will repeat the creed, the commandments, and church-prayers accurately; is very attentive to the religious services at home, and is anxious to go to church every Sunday; can read and write well; and is a basketmaker. A short time ago he sent a specimen of his work to his parents, which much surprised them."

"D. A., a boy, aged thirteen years; admitted *May*, 1851; could only utter single words imperfectly; had never been subjected to control; was of dirty habits; used very bad language; and was almost inert. *April*, 1854. Speaks very well; habits are correct; can wash and dress himself; has not been known to utter an improper word for twelve months; he is one of the most forward in the play-ground; and a straw-plaiter."

"F. E., a girl, aged twenty years; admitted *June* 1852; was very deficient, and had never received any kind of instruction. *April*, 1854. For a long time little progress was made; now she knows all her letters; can join them into little words; can hem towels, do bead-work, and is learning to write on a slate; she is very active in her movements."

"C. E., aged eighteen years; admitted *February*, 1850; she could not read, write, nor do any kind of needle-work; her speech was very imperfect; her habits incorrect; not much hope of her improvement was entertained. *April*, 1855. She speaks well, and is more intelligent. She can read and write very nicely; and will correctly write down short sentences from dictation; she has become very expert with her needle; can make a shirt, with a little assistance; she knits mittens, comforters, and other useful articles; assists the other girls in dressing; and can make beds."

"S. J., aged seventeen years; admitted *December* 1852; a congenital idiot; his speech was unintelligible; he was unmanageable at home, and had suffered from neglect; could neither read nor write, and seemed incapable of thinking. *April*, 1855. He can now read, write, and spell very well; is obedient and attentive; and his countenance has become more cheerful; is active in the play-ground; and works in the tailors' shop."

"J. H., aged thirteen years; admitted *November*, 1853; an imbecile from birth; could neither read nor write; and was very pugnacious. *April*, 1855. He can read and write well. The discipline to which he has been subjected has made him a quiet and useful lad. He assists in putting some of the little boys to bed; he is one of our best singers; and is learning the tailoring business."

Last year 259 pupils were under training at the two establishments supported by the London Society. And the general result of the experience gained in these, so far as the progress of the pupils is concerned, is thus stated:—"It is now delightfully patent to every observer, that for three-fourths of the pupils, much, very much, may be done"—"for the remaining fourth only protection and comfort can be provided."¹

The results of some of the cases treated in this asylum show that the patients will be able, on their dismissal, after five years' training, to contribute in part, and in some cases entirely, to their own support. Already eight of the female patients have been engaged as servants; and as this is never done as a matter of charity, it is among the best proofs that can be given of the efficiency of the training which they have enjoyed. The board of management of the London asylum have done good service in arousing attention to the interests of the idiot in other districts of the country, in which they have been greatly assisted by the Rev. Edward Sidney, Rector of Cornard Parva, Suffolk. In the report for 1854 they remark:—"There is reason to hope that in Lancashire, Yorkshire, Edinburgh, and Dublin, an interest has been created, which will issue in separate local action."

A most interesting Lecture on "Teaching the Idiot," was delivered by Mr Sidney in St Martin's Hall, as one of the series of Lectures in connection with the Educational Exhibition of the Society of Arts, Manufactures, and Commerce, in 1854. The series is published in a very cheap form, by Routledge & Co., London and New York.

Private institutions for the training of imbecile youth have also been established at Chilcompton near Bath, and at Lowestoft.

IN SCOTLAND.—Although, as we have seen, it was in Scotland that some of the earliest suggestions as to the feasibility of ameliorating the condition of the fatuous by appropriate training were made, yet it was not until 1852 that the work was actually begun in this country. The subject having attracted the attention of Sir John and Lady Jane Ogilvy, (whose beneficent labours amongst the poor of Dundee had made them familiar with all the multiform causes of distress affecting the lower grades of society,) they generously resolved to erect, at their own expense, an institution for educating the imbecile, on their estate of Baldovan, about four miles from Dundee. The Baldovan Orphanage and Asylum also enjoys the distinguished patronage of Her Majesty and His Royal Highness Prince Albert. A handsome structure was reared and opened for the reception of inmates about a year ago. Under the same roof, but under a totally different management, there is a small institu-

¹ The lowest rate charged in the London establishment is L.25 per annum for each child; for most of the pupils, L.50 is paid.

tion for orphans and other destitute children, belonging to the Scottish Episcopal Church in Dundee. "The advantage of having such children, healthy in body and mind, to be companions for the imbecile children during their play hours, when they have advanced to a certain stage of cure, need hardly be pointed out." The department for idiot children is well arranged, and capable of accommodating between twenty and thirty children, with attendants. Dr Gibson of Dundee is the physician in ordinary to this establishment, which enjoys also the advantage of being watched over, both by the benevolent founders, and by a committee of intelligent gentlemen, especially interested in the work, through local connections and otherwise. The details of treatment and training are superintended by Miss Bodman, an accomplished educator, who has acquired the principles of her art in the schools of Switzerland and London. It is too soon to speak of the results obtained at Baldovan, but we have reason to believe that these have been as encouraging as elsewhere. No report has yet been published. It is not to be carried on as an eleemosynary institution, but rather as a self-supporting one. Nevertheless, the charges for children of the humbler classes are so moderate that some parochial boards are found willing to place certain of their poor imbeciles there. Superior accommodation is provided for young persons accustomed to the refinements of higher life.

Deeply impressed as we are, with a sense of the gratitude which the nation owes to the worthy baronet and his lady, who have so liberally and well commenced this good work in Scotland, we cannot but hope that they will have the satisfaction of seeing their example followed in many parts of the country. This, we are assured, would be regarded by Sir John and Lady Jane Ogilvy as the best reward they could meet with. May they be long spared to enjoy such rewards—blest in blessing others!

We are without any exact data as to the actual number of imbeciles in any of our large cities, or in Scotland generally—but we cannot doubt that they are very numerous. In Ireland, it was found by the census of 1851 that, of idiotic persons, as distinguished from the insane, there was 1 in 1336 of the population, and in Massachusetts, in 1846, among 185,942 of town population, a number not much above that of our own city, there were 361 true idiots, *i.e.*, those whose mental feebleness was from birth, and there were many others whose mental powers were impaired from other causes. Among 420 cases, which were examined by the American Commissioners, 185 were under 25 years of age, and of these 174 seemed capable of improvement—only 13 seemed hopelessly imbecile. These were found to belong to all classes of society,—only 148 of the 420 cases were paupers. From these data, which accord with our own limited observations, we believe that, in Edinburgh alone, there are certainly numbers sufficient to call for a special effort being made for their relief; and in Scotland generally, it is estimated, that there are above 2000 of our fellow creatures who are the subject of impaired mental powers, and who wait for that amelioration of their condition which, elsewhere, they have already been proved capable of receiving.

"Very recently, we are glad to learn, an institution for the treatment and training of invalid and imbecile children has been opened in Edinburgh. It is under the immediate direction of Dr David Brodie, whose qualifications and experience are devoted mainly to the work of doing all that medical science and improved systems of training point out as applicable to the improvement of the physical and moral conditions of the objects of his care. He is assisted by Mrs Brodie, whose previous engagements in the education of youth have well prepared her for the laborious but hopeful duties of her present position. A visiting committee, composed of several respectable and influential gentlemen, will inspect the institution from time to time; two medical gentlemen, Drs John Smith and Coldstream, whose attention has been specially directed to the work, will act as physicians; so that the public are supplied with the best guarantees that can be given for the establishment being conducted in a thorough and efficient manner."—*Edinburgh Medical Journal*.

The founders of this Edinburgh School were very unwilling to add another to the already very numerous, and yet inadequately supported, charitable institutions of this metropolis. They, therefore, made various attempts to induce the managers of some of the large and richly-endowed educational establishments to engraft the plan upon their own. These attempts failed, chiefly from its having been found impossible to adopt such a scheme, without illegally contravening the charters of the respective schools applied to.

An application was also made to the City Parochial Board for leave to establish a school for pauper children in connection with the work-house, should any considerable number of imbecile paupers of a suitable age be found to exist in the city. The subject was earnestly pressed upon the attention of the Board by Dr Smith, who, in a printed memorial, stated what had been done elsewhere for the good of fatuous children, and urged the Board to establish proper schools for the poor objects under its care. This memorial was extensively circulated, and helped not a little to rouse the attention of the public to the subject.

Sooner or later, Parochial Boards, upon which a very large proportion of the imbeciles belonging even to the more respectable classes of society ultimately falls, will be obliged to move in this matter. Either they will establish schools of their own, or send their fatuous pauper-children to some of the existing institutions. But for such movement, it was considered quite inexpedient to wait.

Dr Brodie having resolved to devote himself to the good work, a few generous friends supplied the means of making a commencement. No small difficulty was met with in endeavouring to find a suitable house. An airy and quiet situation in the outskirts of the town, with a good house and garden, was a combination not easily found. The tenement ultimately secured is in Gayfield Square. It is, in several respects, admirably adapted to its purpose. As in the case of Baldovan Institution, it is desired to have the Edinburgh school a self-supporting one. The Directors, however, are willing to receive contributions from the benevolent, either for the general support of the Institution, which cannot be expected, for some time at least, to be supported by its own proper revenue, or for application to particular cases belonging to the less

affluent classes of society, of which a sufficient number is known to exist. It is rather recommended, however, that *such cases should be provided for by the union of benevolent individuals directly interested in the several pupil-patients.* This feature of the Institution, as well as the disinclination so generally felt by the parents of weakly children to part with them, will, probably, cause the progress of this new establishment to be slow. But, to admit of the superintendents being gradually initiated into the difficulties of their task, there seems to be a providential fitness in the slowness of its increase.

The following sentences are extracted from the circular which was issued at the time of the opening of the institution :—

“ The objects to be aimed at are :—

“ 1st, The improvement of the general health, by physical training, exercise, bathing, and all other suitable appliances. 2d, The awakening, regulation, and development of the mental powers, by those means, peculiarly adapted to this class, which have already been found so effective in similar institutions. 3d, The employment of those educational resources which have been systematically developed in connection with *Infant Training*, with so much modification and extension as may be necessary to meet the peculiarities of the pupils. 4th, In the cases of the more advanced pupils, the providing of some suitable occupation, giving healthy employment, at once agreeable and profitable, to all their powers ; especially keeping in view such occupations as may fit the pupils for future usefulness and intercourse with society.”

“ The institution will receive a certain proportion of children and youth not affected with mental imperfection or peculiarity, but who are, from bodily ailments or other causes, unable to take their place at ordinary schools. The combination, which this institution presents, of practical medical experience with efficient educational resources, will supply, it is hoped, a want which is much felt by the parents of children in the condition here referred to.”

It may be added, that, as the state of mental torpor of the imbecile is very often the immediate result of deficient nutrition of some part of the brain, so that state of defective nutrition is often aggravated by the torpid condition of the mind, and may be remedied, in a very considerable degree, by using such means as may be successful in exciting the dormant trains of thought and emotions connected with them. This action and reaction of physical organization and mental acts on one another, being in fact a well-established principle in physiology. And as there is a great variety in the departments of mind which are blighted, as it were, in the imbecile, in the principles of association or suggestion of thoughts which are deficient, or in the emotions or feelings on which the mind is apt to dwell with morbid tenacity,—so a good deal of patient study is really requisite for the application of the methods of treatment which experience has shown to be most beneficial, and there is much advantage in their case, (just as in the case of the blind, and of the deaf and dumb,) in *bringing together* a number of individuals who are thus afflicted, and submitting them to the observation of a few persons who not only feel a strong interest in their situation, but become qualified, by study, and experience, and habits of patient attention to their moral

characters, to apply the means which may be most effectual as mental remedies. On this account, the testimony of Dr Conolly of London, the well known physician of the great lunatic asylum at Hanwell, and of Dr Howe in America, best known in this country by his minute and accurate detail of the extraordinary case of Laura Bridgeman,—quoted above p. 6 and 8,—are of peculiar value as regards the prospect of ultimate success in all the objects of this institution.

We can hardly conceive it to be necessary to say more on behalf of the helpless ones whose interests it is the object of this paper to further. Numerous and helpless as they are, and clamant as is their condition, *they cannot plead for themselves*,—they are altogether dependent on the sympathy and assistance of the more highly favoured members of the common family,—and, as neglect and cruelty have hitherto done much to aggravate the miseries of their lot, so, since the efforts of the last few years have demonstrated that they are perfectly capable of being made to share in many of the ordinary enjoyments and useful pursuits of life, we ought to be moved by every consideration to aid in bringing such resources as are fitted to awaken and direct their dormant faculties within their reach. The contrast which is presented by the imbeciles under judicious training, when compared with those left to the ordinary influences of common life, even in the most favourable circumstances, ought at once to settle all questions as to our duty towards them. Pastor Bost of La Force, in the Dordogne, France, who was lately in this country soliciting assistance for the extension of his asylum, expresses his conviction that this work is surely pleasing to Him who, when He was on earth, made the mentally afflicted and the diseased the especial objects of his mercy.

The backwardness of Scotland, (notwithstanding her abounding educational talent, and her eminent medical zeal and skill,) compared with other lands, in efforts for the imbecile, has been justly the subject of remark; and, in connection with the merely invalid portion of youthful society, it so happens that we may take a lesson from what has been done in other countries, where they have been more ingenious in devising means for the improvement of their faculties, so as to fit them for usefulness.

The following notice of an interesting Institution for this class will shew that, with them, as with the imbecile, a rich reward attends effective and judicious efforts for their improvement.

“Before quitting the subject of Hospitals, I cannot help alluding to an Institution which has been lately established in Hamburg for the cure of diseased and decrepit children belonging to the better classes. In this private hospital, children with limbs or bodies distorted, are received from the earliest age, and may remain till eighteen. The patients are subjected to a regular course of bandaging and bathing, and during their residence in the establishment are educated in every branch of study. The beds upon which the inmates are kept for the most part reclining, are constructed so as to be moved to any angle, and afford every facility for the patient eating, drinking, and even writing. Over the top of each couch is placed a large mirror, which not only reflects every corner of the apartment, but may be so turned as to show the patients those who may be passing on the street. Twice a-week the patients quit their beds to be bathed, and to take an airing in the

garden ; and on other days, when the weather is fine, the beds are wheeled out into the open air. Before any child can be admitted into this institution, an examination must be made, or recommendation given by an experienced surgeon, that the patient is admissible ; and on being admitted the child receives everything from the institution that is requisite for its education, support, and cure. In addition to the more common branches of education and moral discipline, the patient is taught foreign languages, mathematics, history, geography, and music. For all which advantages, including constant medical and surgical attendance, the annual board is only 1200 marks. The parents, relatives, and friends of the children, except under extraordinary circumstances, are only admitted into the institution once a month. It is but due to Herr Goette, the originator and proprietor of this hospital, to say that although the institution was only established in 1823, he has already sent out several individuals perfectly cured, who most probably, had they not been placed under his care, would have continued objects of pity for life, a burden to themselves and to society."¹

The object, then, of the Edinburgh Institution is, to provide, as far as possible, suitable assistance for those children who are unfitted from any cause for the training of ordinary schools. Some may think that it might be more advantageous to have separate establishments for the Invalid and the Imbecile,—and to this there can be no possible objection, were it easy to secure the combination of medical and educational appliances which they require ; but, under judicious direction, it is quite clear that the two classes may be combined in one institution with very decided benefit to each other ; of course, complete separation would be necessary, so far as educational proceedings were concerned, but, in the family arrangements, carefully regulated social intercourse would afford invaluable opportunities for exercising the kindly affections of the invalid, and stimulating the intellect of the imbecile.

From the history of this movement, as sketched in the preceding pages, we think the following deductions may be legitimately drawn :—

1. That very many, perhaps a majority of children, born with such defects of the nervous system as issue in idiocy or imbecility, are susceptible of great improvement, both in mind and body, under appropriate treatment and training.
2. That *all* fatuous children ought to be subjected to the proper means of education in institutions devoted to the purpose.
3. That such institutions ought to be superintended, or conducted by, properly qualified medical men, who should have the assistance of persons qualified for the task by patience of temper, and by experience of cases more or less similar.

¹ Germany in 1831, by John Strang, vol 1, p. 60.



