a hazy classification, speciously exact, and fitly paralleled, as has been suggested, by the classification of respiratory diseases under slow, hurried, and irregular breathing.

Let me digress for one moment, to remark that the difficulty of organising in this country satisfactory clinical instruction in insanity, has much to do with this state of things. But, though the medical schools of Britain are all alike open to this censure, you are not thereby free from responsibility. The time is not far distant, I hope, when the new *clinique* in our immediate neighbourhood shall include wards for nervous diseases. But, meanwhile, you can do much by careful study and observation to remedy the defect. By nervous diseases, is commonly understood a chaos in which neuralgia, hysteria, fear, and insanity are included and covered by one censure; in fact, to condemn a pain as nervous, or to call mental anxiety just nervousness, is deemed, for the most part, to fulfil the double condition of scientific precision and exhaustive treatment. Woe to the man or woman who has once been branded as nervous; let him or her retire as soon as may be to an asylum, or consult a quack doctor, for careful treatment; even human sympathy is forfeited, as a general rule, by the nervous. Gentlemen, this is a sad admission to make; it is only a slightly exaggerated statement. Never forget that these trifling ailments cannot be summarily dismissed; it requires attention to ascertain their genuineness or fanciful character; and even if they be mere fancies, laughter, rudeness, and indifference, are not the best, nor are they generous ways of dispelling them. But they are frequently the signs of unsuspected disease, which will escape detection till the time of recovery is past. Nervousness in (of all men) a London attorney was removed by the timely injunction to take a sufficient midday meal: imperfect nutrition having originated symptoms undistinguishable at first sight from those of general paralysis. Melancholy, irregular in its paroxysms, has been traced to residence in a house or district badly drained; for, Dr. Madden notwithstanding, malaria is not simply catarrh with or without influenza. In isolated cases, errors in diet or in domestic arrangements may require some ingenuity to hunt out; but it is worth while cultivating that ingenuity when it is known how frequently external conditions, that is to say, removable causes, foster temporary diseases, which may, by neglect, become permanent organic lesions.

Such cases I hold to be socially more important than fevers or surgical accidents; for the hereditary transmission of degraded *physique*, and of weakened nervous system, is thereby prepared for; and the issue, as I have shown, is serious. Let it not be said that the weakly tend to disappear by natural selection: they do in one way truly, but extinction by infertility is somewhat slow, and, before [that has been reached, the minor degrees of impairment have been multiplied, so that each diseased man becomes, as it were, a centre of mischief, the area of which it is impossible to define.

But it is in large towns that you will find the most hideous evidence of the moral taint of disease; it is in them that the most earnest practitioner will find the widest field for his philanthropic exertions. But, alas! it is there, where the need is greatest, that the hope of success is least. Greed, *laissez aller*, and the worst forms of corporate and private selfishness and indifference, carefully foster disease, to the pecuniary damage of the community and the persistent moral degradation of a large section of the people. I was struck with the fact that in 1777 the mortality in Glasgow, below five years of age, was the same per cent. as now. Dr. Gairdner, to whom I mentioned this fact, startled me by saying the wonder is that it is not greater now. And his admirable paper on Defective House Accommodation as a cause of Mortality fully explains his meaning. Persistent overcrowding, defective ventilation and drainage, tend to produce and maintain a bodily state which is eminently unfavourable to the chances of life of the young. But they, at the same time, permit and foster—nay, rather directly originate—a perverted moral state, under which care for the offspring diminishes. The social question here overshadows the purely medical one; and, as statistics have been adduced to show that the mortality in Scottish towns is increasing, while in English towns it is diminishing, there is no chance that your efforts as public instructors and social leaders may soon be dispensed with. Do not imagine that this is true for towns only, or even for the lower part of towns; the same social errors are committed in every part of the country—in the best as well as the lowest districts of our large towns; the same evils have to be combated; the same line of conduct is required of you in all cases.

I do not expect that you will assent to all I have said; but to the main object of this address no exception can be taken.

I have endeavoured to make clear, by a few examples, that the medical man who trusts to his purely professional skill, and believes that having exerted that he has discharged his duty, is only, after all, a well trained tradesman, for he has not sufficient enthusiasm to be called a

monomaniac. Your duty to society requires that you should use all your knowledge, not merely to heal the sick, but to better the healthy. You have learned the mutual actions of body on mind and mind on body; you are, therefore, prepared to remove or to avert disaster from either; and you are required to use this knowledge, not merely in the face of actual or impending danger, but so that the possibility of mischief may be diminished from year to year. You will not always earn substantial reward, far less fame, by your efforts; but ours is a profession which has not always limited its work by the prospect of returns. One reward you are certain of, that of a good conscience; and the consolation of having done your best for the good of your fellow men is not to be lightly thought of.

ISCHL AS A SUMMER RESIDENCE FOR CONSUMPTIVES.

By J. HENRY BENNET, M.D.

IN one of the interesting letters of the Vienna correspondent in a recent number of the JOURNAL, I have just read a warm recommendation of Ischl as a summer residence for British consumptives. I must, however, register a disclaimer of this opinion, founded on personal knowledge of Ischl, and of the Continent generally, in summer time. I have passed several weeks at Ischl in August and early September, and have no hesitation in saying that, lovely as it is, the heat is much too great for consumptives. This favourite watering-place is, it is true, fifteen hundred feet above the sea; but that elevation in continental Europe does not sensibly mitigate summer heat. Indeed, at the latitude of Ischl it requires, at the very least, double the elevation—one of from three to four thousand feet—to escape the extreme tropical heat of July and August.

I believe that it is now generally acknowledged by British pathologists that extreme heat is most pernicious in tubercular disease. Intense heat is everywhere inimical to health and to life; it tries even sound constitutions, and is still more injurious to those who are suffering from cachectic diseases, and especially from tubercular cachexia. It destroys the appetite, impairs sleep, gives rise to exhausting perspirations, and interferes with the physiological action of the lungs, liver, and intestines, thus predisposing to bilious and intestinal derangement. Are such conditions—conditions altogether antagonistic to the recuperation of vital power—to be actually courted and sought for?

Yet this is what consumptives do when they leave our temperate island for the heated mainland in midsummer. They rush into the furnace of continental midsummer heat, from which there is no escaping, except by ascending mountains to an altitude of 4000 feet or thereabouts. This can, it is true, be done in some regions, such as Switzerland, where there are various *pensions* and hotels at the higher mountain elevations, as in the Engadine and on the Rhigi. Indeed, to be safe in continental Europe in July and August, consumptives must seek these havens, these harbours of refuge against hot weather. No mineral waters, however salubrious and vitalising, can compensate for the absence of a cool bracing atmosphere; nor can they ever counteract the evil effects constantly produced by an amount of heat which makes life itself an ordeal, a penance, during the day, until the shades of night fall, to be endured only by living in darkened rooms in a state of semi-nudity, and by drinking buckets of lemonade and iced water.

I am fairly warranted, on my own personal experience, in stating that there is no summer climate in Europe so good for consumptives as our British insular climate, where we are constantly screened from the rays of the midsummer sun by an atmosphere full of watery vapour. I attribute in a great measure my own recovery to my having withstood the temptations of summer travel, and to my having returned home year after year. I may add that my experience with others has been identical. Every spring, for the last twelve years, I have had, at Montone, where I spend the winter, to direct the movements of a considerable number of consumptives, whom I have helped on throughout their winter sojourn. Many will travel, will go to Switzerland; many are obliged to remain in the vicinity of the locality where they are to spend the ensuing winter, owing to *res angusta domi*; but I invariably use my influence to induce them to go to the higher mountain regions. Every autumn, when we all meet again, I find that those who have returned to England, and have lived there in the country, have done the best. Nearly all my best cases during ten years have been persons who have returned regularly to England, who have even there sought cool, healthy country localities, and who have gone north in our very hot weather.

In conclusion, I would remark that a knowledge of these facts does

not seem to exist among the Germans. After wintering in the south, they mostly go stolidly home, as a matter of course, and often remain sweltering during the dog-days at some watering-place on the Rhine or elsewhere. There they imbibe quantities of mineral waters in the midst of tropical heat, vainly hoping thereby to cure a vital cachexia, only to be arrested or cured by carrying out *all* the laws of physiology and hygiene, and that to their extreme development and limit.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF BERLIN.

By H. ROSBOROUGH SWANZY, M.B. Dub.,

Surgeon to the National Eye and Ear Hospital; Ophthalmic Surgeon to the Adelaide Hospital; late Assistant to the late Professor von Graefe, Berlin; etc.

II.

THERE is one course given at Berlin which in itself would more than amply repay a visit, and in praise of which too much could not be said; namely, von Langenbeck's Operative Course. He gives two such in the year: one during the Easter recess, from 8 A.M. to 10 A.M.; the other in the Summer Session, from 6 A.M. to 8 A.M., several times a week. I never knew von Langenbeck to be five minutes late in commencing. The course is held in the *post mortem* room of the Pathological Institution, and the Professor walks down thither in the morning from his house smoking a cigar. There are usually three or four subjects to be operated upon by fifteen or twenty students; this being but half the class, while the other half come on the alternate days. Langenbeck, however, frequently confers upon foreigners the privilege of attending with each section. A short lecture is first given on some particular operation, in which the professor sets forth the views of others as well as his own, mentioning the cases to which he thinks the operation most applicable, the degree of success which has attended his performance of it, etc.; and then, if it be one of difficulty—suppose an excision of the knee—he performs it partially or altogether before the class. If, then, there should be three subjects, five students are set to work at the remaining knee-joints, while Langenbeck himself directs and assists them: and, indeed, he appears to be ubiquitous, at everyone's elbow, ready and willing to answer every question satisfactorily. Then another operation is described, and five other students get their turn; and in this way the two hours pass like a dream. At last the professor lights another cigar, and, bowing to the classes, goes off to attend to his house-business (for in Berlin the medical men have two hours at home for their private patients; one at eight or nine in the morning—and this is the most frequented one—the other at three or four in the afternoon). During this course each student will have done nearly every operation in surgery (including that for cleft palate) two or three times. I believe this course to be quite unique, for where else will be found a surgeon who is covered with honours of every kind, who has been through the hard work of many campaigns, and who, with a world-wide reputation, will still deign to teach students the use of the knife on the dead subject? And yet it happens that the only such surgeon who thinks this not beneath his dignity is one of the best, if not the very best, of living operators.

In papers with a title such as these bear, the name of one, now no more, but with whom the writer had the high honour of being more closely connected than with any of the other Berlin professors, may not be passed over in silence. It is not intended, however, to indulge in a general panegyric upon Albrecht von Graefe. The readers of this JOURNAL have had opportunities, not only in its pages, but elsewhere, of learning what a great and what a good man he was. I would only touch upon the great love he had for his profession, which impelled him to almost superhuman exertions, and which, doubtless, thus hastened his early death. It was von Graefe's wont to visit each one of his hospital-patients twice a day—forenoon and evening. His private patients occupied fifty separate rooms, and the poor patients had fifty or sixty beds arranged in wards. The poor and the rich received equal care from Graefe. I have often known him, when circumstances prevented his making his evening visit at an early hour, instead of omitting it altogether, go his rounds long after midnight. He pursued the study of any mode of treatment, which he might happen to investigate, with the greatest regularity and precision. Thus, when engaged with the strabismus operation, he made notes of over eight hundred cases on which he had operated from which to draw his deductions; and some months before his death he had completed the notes of a thousand cases of cataract-extraction performed by his own method. Von Graefe's clinical lectures could not be excelled for clearness and for power of language. He was very fond of lecturing, and continued to lecture when he had

to be carried from his carriage to the lecture-theatre. He had pre-eminently the power of inspiring his pupils with that love, mingled with respect, which appears to be peculiar to the relation of teacher with pupil. But von Graefe died; and where shall we find one to take his place? Other Bismarcks and other Moltkes might be found, but not another von Graefe.

The vacant chair of ophthalmology in Berlin has been lately filled by the appointment of Professor Schweigger, formerly one of von Graefe's assistants. He has already made a high reputation as an original investigator, and he has had great experience in teaching. He will have the direction—thanks to the exertions of his renowned predecessor—of an ophthalmic department in the Charité, containing eighty beds. Red tape has great sway in Berlin, and with it von Graefe had long to contend before he obtained possession of this department in the public hospital, the arrangements having been completed only about a year previously to his death. Until then, he had been in the habit of lecturing in his own private hospital; but, knowing that this must collapse when he himself went, he was anxious, for the sake of his loved speciality, to provide some hospital appointment to be in connexion with the chair which he occupied.

In 1848, in consequence of the active part which he took in the political struggles of the time, Virchow was obliged to leave Prussia and take refuge in Würzburg. He lived there for some years as professor in the University, and during this time made many of those researches to which he owes his fame. The Prussian Government, then wishing to appoint the best man to their chair of pathology in Berlin, offered it to Virchow, notwithstanding his unchanged political feelings. He, however, only accepted the honour upon certain conditions, among which was one, that the Government should build for him a pathological institution according to a plan which he specified himself. This and his other demands were acquiesced in; and so Virchow was regained to the Berlin school in a way highly creditable to the Prussian Government, and Berlin has become the fountain-head of all the most important advances made in pathology of late years. The Pathological Institution is situated in the grounds of the Charité, but is not contiguous with the hospital-buildings. It contains two large lecture-rooms, a *post mortem* room, a pathological laboratory, a laboratory for physiological chemistry (of which more hereafter), private rooms for the professor and his assistants, etc.

FURTHER OBSERVATIONS ON THE TRUE NATURE OF THE SO-CALLED SKIN-GRAFTING.

By DAVID PAGE, M.D.,

Late President of the Royal Medical Society of Edinburgh.

IN December last, I wrote an account of my experiments on skin-grafting in the BRITISH MEDICAL JOURNAL, and showed at that time that the physiological changes involved in the growth of the graft, as well as the nature of the graft itself, were quite different from those previously supposed. Indeed, so far as I am aware, my communication, embracing, as it did, the result of microscopic investigation into the subject, was the first in which the true explanation was given of what really constitutes skin-grafting. The conclusion at which I arrived was that, when a piece of the integument is removed from a part of the body, and placed upon the surface of an ulcer showing a disposition to heal, there was no transplantation of cutis, but of cuticle, the deeper layer of which, or *rete mucosum*, formed the essential portion for subsequent development and growth; and the young newly formed cells of this layer served as the basis for the production of cicatrix. Further, I found that the artificially induced cicatrix, and that which was spontaneously projected from the margin of the ulcer, were identical in structure, and equally possessing the same low vitality and tendency to destruction, from causes that could not affect the normal integument. These results proved satisfactorily that the *rete mucosum* or *stratum Malpighii* was the part immediately concerned in the process; and that a graft, to be successful, need consist of this layer only. I held, therefore, the view that it is not a transplantation of skin, but of epithelium; not skin-grafting, but epithelium-grafting.

The numerous clinical observations that have appeared in the medical journals since May of last year, when Mr. Pollock, of St. George's Hospital, introduced the process of M. Reverdin into England, show, by their discrepant statements, that much misunderstanding exists as to the true nature of the changes observed. In several instances, the graft has been supposed to disappear for a time, and to reappear when growth sets in. This phenomenon I have elsewhere explained to arise from the simple fact that, after the desquamation of the upper and