THE LIFE AND LABOURS OF GRAVES.

TEN years have elapsed since the death of the author of the *Clinical Medicine*, and now, in attempting to give a sketch of the life and works of him who was once his teacher, then his colleague, ever his friend, the writer but obeys the promptings of a desire which has long been present to him, that the members of his profession should have a more intimate knowledge of one who was so worthy of being enrolled among the benefactors of medicine. For, although the scope of the work with which his name is honourably connected is so great, although it shows evidences of successful labour so multitudinous, it does not, nor from its nature could it, convey a fitting idea of the varied stores of knowledge laid up in the mind of its author, whose life and works, whose powers of observation, whose energy and faithfulness in teaching, mark an epoch in British medicine.

To avoid excessive eulogium is above all things the duty of a biographer; yet, it may safely be said, that the life and labours of Graves, shew, in an admirable manner, how the past can be made to illuminate the works of the present time; for his mind, while it mastered all modern discoveries in physiology and in medicine, still remained

imbued with that old strength and breadth of view, so characteristic of the fathers of medicine,—of Sydenham, Fothergill, Haygarth, Huxham, Cullen, and Gregory, and among Continental writers, of John Peter Frank. And thus he had the rare privilege of leading the advance of the modern school of practical medicine in this country, while, in his practice and in his teaching, he never ceased to venerate and to be influenced by the thoughtful labours and the wisdom of the past.

The pedigree of the family of Graves in Ireland, can be traced back to the period of the subjugation of the country by Cromwell. His ancestor, Colonel Graves, an officer in the Protector's cavalry, at that time acquired large estates in the county of Limerick. The subject of this memoir was the youngest son of Richard Graves, D.D., Senior Fellow of Trinity College, and Regius Professor of Divinity in the University of Dublin, and of Eliza, daughter of James Drought, D.D., also a Fellow of Trinity College, whose family had been long settled in the King's County.

Dr. Richard Graves, the author of the work entitled *Lectures on the Pentateuch*, was afterwards promoted to the Deanery of Ardagh. His sons, Richard, Hercules, and Robert, passed through the University with great distinction, and it is worthy of note, that these brothers each obtained, at the degree examinations of three successive years, the gold medal in science and in classics, then the highest distinction attainable by students.

The degree of Bachelor of Medicine in the University of Dublin, was conferred on Robert Graves in 1818. He soon after proceeded to London, where he studied for some time. The schools of Berlin, Göttingen, Vienna, and Copenhagen, and those of France and Italy were subsequently visited.

Three years were thus employed, and then, after having resided for some months in Edinburgh, he returned to Dublin.

In this large and truly liberal education, which embraced the training of the school, the university, and the world, we can discover in part the foundations of his subsequent eminence. He did not content himself, as is so commonly the case, with commencing—to use his own words—"the life of a practitioner without practice," but he made himself intimate with the recent discoveries and modes of thinking in every great school of medicine, whether abroad or at home, and formed friendships with the leading physiologists and physicians of Europe, with many of whom he kept up a correspondence during his life. His power of acquiring languages was remarkable. On one occasion, when on a pedestrian journey in Austria, having neglected to carry his passport, he was arrested as a spy, and thrown into a dungeon. His assertion that he was a British subject was disbelieved by the authorities, who insisted that no Englishman could speak German as he did! In his imprisonment, which lasted for ten days, he suffered great privations.

During his sojourn in Italy, he became acquainted with Turner, the celebrated landscape painter, and was his companion in many journeys. He often spoke of the pleasure he enjoyed, during the sketching tours taken in company with the great painter. The history of his first meeting with Turner, may be here related:—

Graves was travelling by diligence, when, in one of the post stations on the northern side of the Alps, a person took a seat beside him, whose appearance was that of the mate of a trading vessel. At first, no conversation took place between them, but Graves' curiosity was soon awakened by seeing his fellow-traveller take from his pocket a note-

book, across the pages of which his hand, from time to time, passed with the rapidity of lightning. Overcome at length by curiosity, and under the impression that his companion was perhaps insane, Graves watched him more attentively, and discovered that this untiring hand had been faithfully noting down the forms of the clouds which crossed the sky as they drove along, and concluded that the stranger was no common man. Shortly afterwards, the travellers entered into conversation, and the acquaintance thus formed soon became more intimate. They journeyed together, remaining for some time in Florence, and then proceeding to Rome. Graves was himself possessed of no mean artistic powers, and his sketches from nature are full of vigour and truth. He was one of the few men in whose company Turner is known to have worked. The writer has heard him describe how, having fixed on a point of view, he and his companion sat down, side by side to their work. "I used to work away," he said, "for an hour or more, and put down as well as I could every object in the scene before me, copying form and colour, perhaps as faithfully as was possible in the time. When our work was done, and we compared drawings, the difference was strange; I assure you there was not a single stroke in Turner's drawing that I could see like nature; not a line nor an object, and yet my work was worthless in comparison with his. The whole glory of the scene was there." The tone and fire with which Graves uttered these last few words, spoke volumes for his sympathy with, and his admiration of the great painter of nature.

At times, however, when they had fixed upon a point of view, to which they returned day after day, Turner would often content himself on the first day with making one careful outline of the scene. And then, while Graves worked on,

Turner would remain apparently doing nothing, till at some particular moment, perhaps on the third day, he would exclaim, "There it is!" and seizing his colours, work rapidly till he had noted down the peculiar effect he wished to fix in his memory. It is a curious fact, that these two remarkable men lived and travelled together for months, without either of them inquiring the name of his comrade, and it was not till they reached Rome, that Graves learned that his companion was the great artist.

After leaving Rome he visited Sicily, and in connection with this excursion, the following incident is worthy of being recorded, as giving an insight into his character, and as preparing us to estimate one of its features, for which in after-life he was justly distinguished, namely, his promptness and vigour of action, when confronted with difficulty and danger.

He had embarked at Genoa, in a brig bound for Sicily. The captain and crew were Sicilians, and there were no passengers on board but himself and a poor Spaniard, who became his companion and messmate. Soon after quitting the land, they encountered a terrific gale from the north-east, with which the ill-found, ill-manned, and badly commanded vessel, soon showed herself unable to contend. The sails were blown away or torn, the vessel was leaking, the pumps choked, and the crew in despair gave up the attempt to work the ship. At this juncture Graves was lying on a couch in the cabin, suffering under a painful malady, when his fellow-passenger entered, and in terror, announced to him, that the crew were about to forsake the vessel; that they were then in the very act of getting out the boat, and that he had heard them say, that the two passengers were to be left to their fate. Springing from his couch, Graves flung

on his cloak, and, looking through the cabin, found a heavy axe lying on the floor. This he seized, and concealing it under his cloak, he gained the deck, and found that the captain and crew had nearly succeeded in getting the boat free from its lashings. He addressed the captain, declaring his opinion, that the boat could not live in such a sea, and that the attempt to launch it was madness. He was answered by an execration, and told that it was a matter with which he had nothing to do, for that he and his companion should remain behind. "Then," exclaimed he, "if that be the case, let us all be drowned together. It is a pity to part good company;" as he spoke, he struck the sides of the boat with his axe, and destroyed it irreparably. The captain drew his dagger, and would have rushed upon him, but quailed before the cool, erect, and armed man. Graves then virtually took command of the ship. He had the suckers of the pumps withdrawn, and furnished by cutting from his own boots, the leather necessary to repair the valves, the crew returned to their duties, the leak was gained, and the vessel saved.

During his stay on the continent, he corresponded with the late eminent Dr. Perceval of this city, it being arranged that his letters should be circulated among his friends, among whom may be mentioned Wolfe, the author of the lines on the Burial of Sir John Moore; the late Bishop of Meath, Dr. Dickinson; and the present Archdeacon of Clogher. To the latter he also addressed several letters, expressing his desire that they, as well as those to Dr. Perceval, should be read by his friends. In these communications, as might be expected, he avoided much allusion to matters purely professional, but they contain a large amount of information on the state of society on the continent, and also some

admirable disquisitions on subjects relating to natural history and classical antiquities.

In 1821, Graves returned to Dublin, and, as was anticipated, at once took a leading position in the profession and in general society. Nature had been bountiful to him: he was tall in stature, of dark complexion, and with noble and expressive features. In conversation he possessed a power rarely met with; for while he had the faculty of displaying an accurate and singularly varied knowledge without a shade of egotism, he was able to correct error without an approach to offence. From this may be learned one source of that power he so possessed of influencing the minds of men; for there is nothing more captivating than the conversation of one, who though by nature proud, has trained himself to be mentally humble.

He had at once a warm and a sensitive heart, and ever showed lasting and therefore genuine gratitude for the smallest kindness. Loving truth for its own sake, he held in unconcealed abhorrence, all attempts to sully or distort it; and he never withheld or withdrew his friendship from any, even those below him in education and social rank, if he found in them the qualities which he loved, and which he never omitted to honour.

As bearing on this point, it is to be remarked, that his love of civil and religious liberty, often ardently and fearlessly expressed, led men of limited views to think him imbued with the doctrines of continental liberalism; yet he was, in principle, a thorough monarchist, and few more admired, because few better understood, the nature and value of that constitution and that law under which it is our happiness to live. The following passage from the Essay on the Laws of Periodicity, page 128, may here be quoted.

"It is, then, perfectly well ascertained that in England, Ireland, and Scotland, the mortality is much lower than in the poetic 'lands of the sun,' Italy and Greece. But we are not to attribute the superiority of any country in this respect, either to its soil or climate, for there is no doubt that if civilization, the blessings of a free government, and the enjoyment of the comforts of life, were as extensively diffused among the Greeks and Italians as they are among the inhabitants of the British Islands, the rate of longevity in these countries would be remarkably increased."

It is to be observed that as his mind was open and unsuspicious, he, occasionally, fell into the error of thinking aloud without considering the nature of his audience, and of letting his wit play more freely, and his sarcasm, when defending the right, cut more deeply than caution might dictate.

This outline of the character of Graves at the commencement of his public life, will throw light on many matters relating to his subsequent career, and it is important to note that the world never spoiled him, so that he preserved most of the youthful, and all the kindly and better qualities of his mind up to the hour of his death. His friends became bound to him with ties stronger than those of relationship, and thus he was enabled to take with a "frolic welcome" the occasional and natural hostility of the bad, the presuming, or the indirect man.

It will be well to review the condition of the School of Medicine in Ireland up to 1821.

For at least a century previously, the medical faculty in the University of Dublin had a *bonâ fide* existence. The Regius Professorship of Physic had continued as a separate institution from the time of the Restoration, and we find appointments to the chairs of Anatomy, Chemistry, and

Botany, so early as 1711. With anatomy, surgery was combined, and from these chairs, courses of lectures were delivered to such pupils as were on the books of the University as students in arts, without excluding those who chose to take a purely medical education. Subsequently, the chairs of Medicine, Institutes of Medicine, and of Materia Medica, on the foundation of Sir Patrick Dun, were added, by act of parliament, so as to constitute a complete School of Physic. It is greatly to the credit of the University of Dublin that from an early period it possessed a full and endowed medical school, and so, in no small degree, preserved academic rank for the Irish physician. This circumstance, and also the determination of the University not to grant medical degrees on any system of exclusively medical, or special education, have, doubtless, had their influence in giving to the profession in Ireland that high tone and social position which it has so long enjoyed. It is not to be denied that the preservation and development of the faculty of medicine in the University of Dublin were favoured by external circumstances, among which may be noted the metropolitan position of Trinity College, and the existence of so many hospitals in the city.

The Royal College of Surgeons was founded in 1784, and in its school, subsequently established, chairs of anatomy and surgery were ably filled. The teaching of clinical medicine had been, at least, attempted, and the breaking out of the war with France, by increasing the demand for military and naval surgeons, gave a stimulus to surgical training, and led to the application of private enterprise to the business of teaching, for it was little better; the object being to qualify young men, by special instruction in anatomy and surgery, to enter the public service in the

shortest possible time. For this end, the facility of obtaining in Dublin, subjects for dissection, gave a great opportunity. We may safely designate as unproductive those periods of the Irish school, when its energies were confined to the mere teaching of anatomy and surgery, and even of medicine, in the theatre. Dublin was then little more than a school of elementary anatomy, of book-medicine and book-surgery. And although it possessed teachers of excellent calibre, they had but a local reputation.

For it is with societies of men as with individuals, that which earns and extends respect does not depend so much on the teaching of what is already known, no matter how excellent that teaching may be, as upon the productiveness of the society or the individual, of original work. As might bee xpected, the system then in operation produced a few anatomists of average ability, but little more. Among the teachers, most of them who had reputation were otherwise trained. Clinical investigation and clinical teaching could scarcely be said to exist, and so the great path to the advancement of the healing art was almost untrodden, and the minds of our young men were not only left unawakened to the value and the neccssity of original work, but were even trained to hold in contempt the results of pathological study in other places.

This state of things was not to last. In 1817, we find that Cheyne, a native of Scotland, and educated in Edinburgh, made the first step towards inducing the taste for original observation, by the publication of the first volume of the Dublin Hospital Reports. In this effort he associated with himself the leaders of the professions of medicine and surgery in Dublin, but the credit of the undertaking is due to him alone.

Among the medical reports in this work must be especially noticed those on Fever by Dr. Cheyne, which are examples of what clinical reports ought to be. In them, the facts are given calmly and simply, without effort to bias opinion, or to gain notoriety by peculiarity of views. It may be well said, in proof of their value, that they appear to have given the tone to the subsequent labours of the Irish school, which have, as it were, inherited their practical nature and truthfulness, and have earned for their authors so high a reputation. Of this character of the contributions to the sciences of medicine and surgery from Dublin, the writer has elsewhere spoken, and even after the lapse of years he feels bound to repeat, that while these works have aided in building up the scientific character of the country, they may be appealed to as evidences of its moral worth.

Yet, in accounting for the development of the scientific, or, as we may term it, the productive period of Irish medicine, we must look to something more than the influence of individual example, or genius, and inquire whether it was but one of the results of an advance in the whole mental energy of the country. It is certain that the period from 1800 to 1821, was characterised rather by a kind of mental collapse than by activity. Such a result might naturally be expected when the political changes which the country had undergone are considered; and a period of at least one generation, seemed requisite for the growth of those energies which would work out for Ireland her proper place, as an integral portion of the British Empire. The quarter of a century following 1821 is not the least remarkable period of our history, for it was then that a general movement in most departments of mental culture commenced among

us—a movement giving good hope for the future of the country. It was then that the modifications of the University system, as introduced by Dr. Lloyd, Provost of Trinity College, gave such an impetus to collegiate study, and spread a new influence over the country, as evidenced by the general advance in mathematical, physical, and natural sciences, and in the studies of literature and archæology.

Even so early as 1821, the influence of this new movement on medical science was shown in Dublin, and to Graves, among its leaders, must be given a foremost place. During that year, he appeared as one of the founders of the new School of Medicine in Park Street, and was also elected physician to the Meath Hospital, where he commenced that system of clinical observation and instruction which has done so much for the Irish School of Medicine.

The following extract from his first introductory lecture in the Meath Hospital, in 1821, will best explain his views on clinical instruction :—

"The other branches of medical education may be cultivated at different times, and according to a certain order of succession,—one period of your studies demanding a particular application to anatomy, another to chemistry, while a third must be especially devoted to materia medica. With the observation of disease it is otherwise. From the very commencement, the student ought to witness the progress and effects of sickness, and ought to persevere in the daily observation of disease during the whole period of his studies."

"The human mind is so constituted, that in practical knowledge its improvement must be gradual. Some become masters of mathematics, and of other abstract sciences, with such facility, that in one year they outstrip those who have

laboured during many. It is so, likewise, in the theoretical parts of medicine; but the very notion of practical knowledge implies observation of nature. Nature requires time for her operations: and he who wishes to observe their development will in vain endeavour to substitute genius or industry for time. Remember, therefore, that however else you may be occupied—whatever studies may claim the remainder of your time, a certain portion of each day should be devoted to attendance at an hospital, where the pupil has the advantage of receiving instruction from some experienced practitioner. A well-arranged, and sufficiently extensive hospital contains everything that can be desired by the student; but, unfortunately, his improvement is seldom proportioned to the opportunities he enjoys. Whence this deficieney? How does it happen that many attend hospitals day after day, and year after year, without acquiring much practical knowledge? This may be attributed to want of ability or diligence on the part of the student, or to an injudicious or careless method of teaching on the part of the hospital physician. It may be well to examine more in detail the errors to which the student and the teacher are respectively most exposed.

"A great number of students seem little, if at all, impressed with the difficulty of becoming good practitioners; and not a few appear to be totally destitute of any prospective anticipation of the heavy, the awful responsibility they must incur when, embarking in practice, the lives of their fellow-creatures are committed to their charge. It is by persons of this description that the earnest attention and permanent decorum, which ought to pervade a class employed in visiting the sick, are so frequently interrupted. Young men of the character to which I allude, attend, or,

as it is quaintly enough termed, *walk* the hospitals very regularly, but they make their appearance among us rather as critics than as learners: they come, not to listen, but to speak; they consider the hospital a place of amusement rather than of instruction.

"Students should aim not at seeing many diseases every day; no, their object should be constantly to study a few cases with diligence and attention; they should anxiously cultivate the habit of making accurate observations. This cannot be done at once; this habit can be only gradually acquired. It is never the result of ability alone; it never fails to reward the labours of patient industry. You should also endeavour to render your observations not only accurate but complete; you should follow, when it is possible, every case from its commencement to its termination; for the latter often affords the best explanation of previous symptoms, and the best commentary on the treatment. Did time permit, I could expose many other erroneous practices calculated to render your studies comparatively unprofitable; but I must turn from the student to the teacher—from the errors of the learner to the imperfection of the mode adopted for instructing him."

"I have had an opportunity of observing with attention three different methods of conducting clinical instruction; the first is that practised in Edinburgh and Dublin. I shall select that of Edinburgh for examination, it being by far the most celebrated of the British schools of physic, and much resorted to even by foreigners for instruction.* Two clinical clerks, one for the male, another for the female wards, are selected by the physician from among the senior pupils; their business is to write an accurate history of the cases, to

* I speak of Edinburgh as it was when I studied there, in 1819.

report the effects of medicines, and record the symptoms which may have occurred since the physician's last visit. All this is generally done with fidelity and zeal. At his daily visit the physician stops at the bed of each patient, and having received the necessary information from his clerk, he examines the patient, interrogating him in a loud voice, while the clerk repeats the patient's answer in a tone of voice equally loud. This is done to enable the whole audience to understand what is going on; but indeed, when the crowd of students is considerable, it is no easy task; it requires an exertion almost stentorian to render this conversation between the physician and his patient audible by the more distant members of the class; while the impossibility of seeing the patient, obliges all who are not in his immediate vicinity to trust solely to their ears for information.* This information is not indeed neglected, for every word so attentively listened to, and heard with so much difficulty, is forthwith registered most faithfully in each student's case-book; and afterwards all the observations the professors make in their clinical lectures are taken down with equal care and fidelity."

"It is really a pity to find so much labour and diligence thrown away, for it is evident that the practice of medicine cannot be thus taught or learned, as it were, by hearsay; and it is consequently to be feared that many are annually dubbed Doctors at Edinburgh, who have been scarcely ever called on to write a prescription. The chief objection to this mode of teaching is, that however well inclined the student may be, he is never obliged to exercise his own judgment in dis-

* When this information was conveyed, as it formerly was at Sir Patrick Dun's Hospital, in Latin, the student had to encounter another barrier to the acquisition of knowledge. I have called the *language* LATIN, in compliance with the generally received opinion concerning its nature.

tinguishing diseases, and has no opportunity of trying his skill in their cure; and, consequently, at the end of his studies he is perhaps well grounded in the accessory sciences—is a perfect medical logician—able to arrange the names of diseases in their classes, orders, and different subdivisions; he may be master of the most difficult theories of modern physiologists; he may have heard, seen, and if a member of the Medical Society, he may have also talked a great deal; but at the end of all this preparation, what is he when he becomes a full Doctor?—*a practitioner who has never practised!*

"I do not assert that a diligent student may not obtain a good deal of knowledge by attending one or several clinical courses in Edinburgh; no doubt he will gain many useful general ideas concerning the nature and treatment of disease; and if he himself examine the patient after the physician's visit, he may even acquire a certain degree of tact in recognising symptoms and appreciating their value. This method of instruction is indeed very useful, and nothing better can be devised for a beginner; but for the more advanced student it is by no means sufficient, nor is it calculated to give him practical experience, without which all other acquirements are of no avail. I say it does not give him experience, because he has at no time been charged with the responsibility of investigating a case for himself, and by himself; because at no time has he been called on to make a diagnosis unassisted by others, and, above all, because he has never been obliged to act upon that diagnosis, and prescribe the method of treatment. If those who had been thus educated, and who had been made doctors upon so slender a foundation, were to confess the truth, we should be presented with a picture calculated to excite dismay, if not a stronger feeling.

How many doubts and distracting anxieties attend such a man at his first patient's bedside? If the disease be acute, and life in imminent danger, and if he shrink under this sudden and unusual load of responsibility, he gains little credit for professional ability; if, on the contrary, inexperienced as he is, he assumes that decision of judgment, that energy of practice, which experience alone can confer, it is not improbable that the result may be still more disastrous."

"Gentlemen, I am not drawing a picture from my imagination alone; I have had occasion too often to shudder at the original,—too often to deplore the sad effects resulting from the well-meant but totally mistaken treatment employed by young men; and often have I regretted that, under the present system, experience is only to be acquired at a considerable expense of human life. There is, indeed, no concealing the truth,—the melancholy truth,—that numbers of lives are annually lost in consequence of mal-treatment. The victims selected for this sacrifice, at the shrine of experience, generally belong to the poorer classes of society, and their immolation is never long delayed when a successful candidate for a dispensary commences the discharge of his duty. The rich, however, do not always escape; nor is the possession of wealth in every instance a safeguard against the blunders of inexperience.

"This charge of inexperience is not necessarily confined to the beginner; it applies equally to many an old practitioner, whose errors have grown, and have increased in strength, during a long succession of years; because, from a defect in his original education—from the absence of a properly directed clinical instruction, he commenced practice without having previously acquired the power or the habit of accurate observation; because he had not in his youth been

taught to reason justly upon the facts presented to his view; because not having learned in the beginning to think accurately, he contracted a loose and careless mode of examining the progress of disease, and the effects of remedies; and, consequently, the lapse of time has had no other effect upon his errors than that of rendering them more inveterate. Such a man has generally an overweening confidence in his own judgment; he never detects or is conscious of his own mistakes, and instead of improvement, years bring only an increased attachment to his opinions—a deeper blindness in examining the results of his own practice; and do not such persons abound in every branch of the profession?—are there not general practitioners, are there not physicians, are there not surgeons, are there not apothecaries, who answer to this description, and who nevertheless are cheerful in their demeanour, and enjoy a good repute among their clients? Believe, me, gentlemen, the quacks who cover our walls with their advertisements, vend not annually to the community more poison than is distributed according to the prescriptions of your routine and licensed practitioners:—and yet the science of medicine is improving daily, and treatises on the practice of physic are every day multiplying. Why, then, is society so infested? Many circumstances concur to produce this effect; but the most influential is undoubtedly that which now occupies our attention,—I mean a system of clinical instruction radically wrong, because it does not teach the actual practice of medicine. Is there any other profession or art, or even trade, in which any but a madman would embark unprovided with a store of practical knowledge? But enough of this unpleasing subject. Let us next consider what systems have been adopted in other countries,

with a view of judging how far it is either practicable or expedient to introduce them into this.*

"In France, the mode of conducting clinical instruction is very similar to that which we have already described, and is consequently attended with nearly the same advantages and defects. In the French hospitals, however, no reports are dictated to the clerks, and more care is taken to explain the symptoms and progress of each case at the bed-side of the patient: in fact, these explanations answering to the original institution and design of clinical lectures, are attended with many important advantages, and are well worthy of imitation. By this means the trouble and uncertainty of a circumstantial and detailed description are frequently avoided, by a direct reference to the matter to be described; and the interest of the student is secured by a very slight exertion on the part of his instructor, while the latter owes many new ideas to the degree of attention which he is thus forced to give to each case. It is true that the duration of the visit is thereby increased; and in Italy, where the same plan is pursued, it is not unusual for Tommasini to expend, in the morning, more than two hours upon eight or ten cases, besides the time devoted in the evening to the same purpose. When the importance of the subject to be taught is so great, it is wisely judged that the teachers must be laborious; and it is thought necessary to use every possible means to convey clear ideas concerning each case to the student. His atten-

* As truth has obliged me to expose a fault, which the Edinburgh school shares in common with the other schools of Great Britain, I am bound in candour to acknowledge the very great advantages which Edinburgh, in other respects, offers to students; they there find themselves surrounded by so much diligence, enthusiasm, and zeal, that they can scarcely resist the impulse of improvement, and consequently many learn there to think and to labour, who had been previously careless idlers.

tion is not distracted by seeing a great number of cases in rapid succession, nor (as is too often the case in the hospitals of Dublin and London) are the inquiries dictated by a laudable curiosity on the part of the student, suppressed by a forbidding demeanour or an uncourteous answer from his teacher.*

"Although the French clinic thus presents several manifest superiorities over the British, yet it is liable to the chief objection already urged against the latter—that the student is not supplied with an opportunity of learning the actual practice of his profession. I am by no means disposed to join in the cant of humanity; yet I cannot overlook another disadvantage in this mode of teaching. I cannot help feeling that it is scarcely justifiable to lecture upon a patient's case in his presence, and in his native language; that it is cruel to explain (as must, when this method is adopted, be often done,) that the patient is labouring under a fatal complaint. During such a lecture I have often watched the worn and pallid countenance of the sufferer, while he listened attentively to the record of his past and present sufferings, and I have marked the settled expression of despair it assumed, when the prognosis thus tediously ushered in was too clearly announced. It is cruel to banish from the sick man's bed his sole remaining comfort, it is unmerciful to scare away hope—his only consolation during hours of pain and watching. We ought never to allow any expression to

* In this respect our hospital physicians and surgeons have improved much since 1821. I am strongly disposed to believe that the improvement was not owing to a voluntary change, but to a certain salutary fear of public castigation from the weekly medical press; much, however, remains to be done, for the influence of the last century has not yet entirely ceased, and there are those still lingering among us, who no doubt regret the aristocratic era, when an impassable gulf lay between the student and his teacher.

escape from us which could possibly add the terrors of apprehension to the weight of actual suffering. On this account, while we borrow the useful part of their system from the French, we must correct so glaring a defect by making use of the Latin language, whenever it is absolutely necessary to make any observation that might alarm the patient.* One of the most important duties of a surgeon, or physician, consists in the practice of humanity; and it is very doubtful whether the student does not experience as much difficulty in deriving benefit from the precept as from the example of his seniors, in this department of his profession.

"Observe, gentlemen, I speak not of French but of Irish hospitals; for, saving the objection already adverted to, the conduct of the French physicians is in every respect praiseworthy. We do not find them indulging in coarse, harsh, and even vulgar expressions to their hospital patients; we do not find them provided with two vocabularies—one for the rich, and another for the poor.† The medical, more than any other profession, requires that the better feelings of our nature should be cultivated and fostered. The nature of anatomical pursuits obliges us to violate

* This rule is always observed in Germany, a country remarkable for the zeal and humanity of the medical profession. In Italy both professors and students are less scrupulous. Thus Dr. Clark relates that he has heard the case of a phthisical person explained in all its bearings, by the professor of Bologna, in the patient's presence: in another instance, which occurred at the same place, a female, labouring under cancer uteri, burst into tears on hearing a detailed account of the nature of her complaint.

† When the above lecture was delivered, the abuse I speak of was but too frequent; and will it be credited that many other and greater abuses had existed during the preceding generation! Death, the most efficient of all reformers, had then removed several of the chief actors from the scene, for which, as on most other occasions, he has, I rather think, been undeservedly censured.

many of our natural prejudices, and disregard some of our strongest propensities; let us therefore be doubly anxious to give, by means of the most diligent cultivation, an additional and more vigorous growth to our better feelings —to our social affections; and if we are accused of disrespect for the dead, let us answer the accusation by our humanity to the living.

"But to return to our subject. The third mode of conducting clinical instruction, is that adopted generally throughout Germany; and which, in addition to the means of improvement, comprehended in the plan of the French and English methods, possesses the advantage of allowing the more advanced students to undertake the care of patients in the hospital, under the direction of the attending physician."

"The importance of clinical instruction is so much felt in Germany, that each school has three distinct medical clinics attached to it, by which means the labour of teaching is divided among the professors, and the number of students attending each is diminished. There is one clinical hospital for the treatment of acute diseases, and another for chronic diseases, while a clinical dispensary is devoted to the care of extern patients. The pupils are divided into two classes,—the more advanced, who get the care of patients,—and the junior students, who merely look on and listen. When a patient is admitted, his case is assigned to one of the practising pupils, who, when the physician is visiting the ward, reads out the notes he has taken of the patient's disease, including its origin, progress, and present state. This is done at the bedside of the patient; and before he leaves the ward, the physician satisfies himself whether all the necessary particulars have been accurately reported by the pupil.

After all the patients have thus been accurately examined, the professor and his class proceed to the lecture-room, and a list of the patients and the practising pupils is handed to the professor: the cases admitted that day are first inquired into, and the pupils are examined concerning the nature of their diseases, their probable termination, and the most appropriate method of treatment,—each student answering only concerning the patients entrusted to his special care. During this examination, the pupil's diagnosis and proposed remedies are submitted to the consideration of the professor, who corrects whatever appears to be erroneous in either, and then the student retires to write his prescriptions, while the rest of the cases and pupils undergo a similar examination. At the conclusion, the prescriptions written by the students are read out in order by the professor, who strictly comments on and corrects any inaccuracy or incleganee they may contain. When the prescriptions have been revised and corrected, they are signed by the physician, and handed to the apothecary to be made up and distributed. In some clinics, the price of each medicine is affixed to the bottle or box containing it, in order that the students may become acquainted with the comparative expense of various prescriptions, and may thus be enabled, in private practice, to accommodate, as far as is possible, the expense of the remedies to the circumstances of their patients. The clinic for extern patients is conducted on the same principles: patients who are able to attend, are examined at the dispensary; those who cannot leave their homes are visited by the senior practising students, who always seek the advice of the professor when the case is urgent, or the treatment doubtful.

"Nothing, gentlemen, can be better adapted than this

plan of clinical instruction for the improvement either of the beginner, or of the more advanced student; this daily deliberation and anxious discussion concerning the nature and treatment of each case, is peculiarly interesting, and serves to accustom the beginner to habits of accurate examination, whereby he is taught to interrogate nature for himself, and learn the history and treatment of disease, not from books and descriptions, but from direct observation. The advantages gained by the practising pupils are too obvious to require comment: being obliged to give reasons for every plan of cure that they propose, they are accustomed to a rational and careful investigation of disease; and enjoying the most important of all advantages—the early correction of their errors—they commence private practice with a sufficient degree of experience to render them unlikely to commit any very serious mistakes."

"It is evident that, according to the German method, no regular clinical lectures are necessary, as the pupil becomes accurately acquainted with the physician's views of each case, and no step is taken in the treatment without the reasons for it being given. This is the best sort of clinical lecture; the pupils have their doubts solved, and their erroneous views corrected, while the professor is enabled to mention, as the disease proceeds, every thing which he thinks illustrative of its nature."

"Eleven years' experience, since I first delivered the foregoing observations, enables me strongly to recommend the method of instruction pursued in Germany. Since my appointment to the Meath Hospital, I have had extensive opportunities of observing its good effects. Not a session has elapsed without furnishing proofs in its favour. This system, however, at first met with much opposition, and its

introduction was ridiculed in every possible manner; even now it may be doubted whether its well-wishers are as numerous as might be expected. It is still opposed by several narrow-minded persons, whose opinions have much weight with the pupils."

Some apology seems necessary for the length of the preceding extract, but when it is remembered that in this, the first lecture delivered by Graves, he has given his views as to how medicine,—that is, practical medicine,—medicine employed to prevent, to cure, or alleviate disease, is to be learned; and that it conveys the leading thoughts of his mind on the entire subject, the time given to its careful study cannot be termed misspent. For three successive years did he return to this subject, dwelling on the errors of the system of instruction, if such it might be called, which was, and, it is to be regretted, is still too much in use among us. It may be safely said, that up to his time clinical teaching, in the true sense of the word, was unknown, and that clinical knowledge was attainable but to the few who were forced by circumstances into observation at the bedside. To teach the general class of an hospital, in the fulfilment of a duty to them or to science, was an idea never realized by our hospital physicians and surgeons. Those great responsibilities of the British teacher of medicine, of which he has so largely and eloquently spoken,* were unregarded, and so the student, unassisted, undirected, was left to grope his way as best he could. He was kept at a distance; no one cared to instruct him, to show him how to teach himself, to make him familiar with bedside medicine and the "ways of the sick," to exercise his powers of perception, to train his mind to

* See page 422.

reason rightly on the phenomena of disease; and lastly, to make him learn the duty as well as taste the pleasure of original work. The impassable gulf which in that aristocratic era lay between the student and his so-called teacher, was by Graves made to disappear, and for the first time in these countries was the pupil brought into a free and full and friendly contact with a mind so richly stored that it might be taken as an exponent of the actual state of medicine at the time; a mind ardent in research, fruitful in discovery, and yet no miser of its wealth, but ever ready to pour forth its riches to all, and for all who were ready to receive them.

The writer will be borne out in what he has now said by those who remember the impetus which the teaching of Graves at the Meath Hospital, gave to clinical study in Dublin. In the opinion of the world the great sources of success in a teacher are his powers of exposition, and his extent of knowledge combined with the gift of eloquence; but this view of the matter is too limited. All these, indeed, he had. The style of his speaking was massive, nervous, and forcible, unweakened by sentimentality and undisfigured by bathos. Yet in considering the sources of success in a teacher we must look beyond oratory or erudition. A great teacher must in the first place be gifted with that strange power, partly physical, partly moral, which in itself gives to its possessor command over the minds of men. In the next place, the teacher must be thoroughly in earnest, for this gives to every word he utters a power of forcing its way that cannot be resisted. Lastly, to use the words of Arnold, "he must not supply his hearers from a cistern, but give them living water." He cannot expect to command attention or interest when he gives, year after year, only the same

facts, views, and arguments, no matter how valuable they may be. For even to those who hear him for the first time, his discourse will fail in vitality, and in producing that sympathy between the speaker and the hearer, which makes the latter not only receive gladly what has been said, but almost anticipate that which is to follow. This power is attainable only when the teacher is himself an original investigator, when he has himself been permitted to strike the rock, and to cause it to pour forth the fresh and sparkling stream. Genius, the creative power, so far as such a power is given to man, will, while it produces its golden fruits, find a descriptive language of its own, which he who deals merely with the thoughts and discoveries of other men can never speak.

Original investigation, it is plain, not only is concerned with the new, the unknown, but gives to the past a freshness by the analogic method. In this latter, Graves was pre-eminent. His active mind was ever on the search for analogies, and thus he was led to the discrimination of things apparently similar, and to the assimilation of things at the first view dissimilar, in a degree hardly surpassed by any teacher of medicine.

It has been held by some that Graves advocated the system of a special or exclusive education for the student in medicine; and a superficial study of his views, as given in his second and third discourses, might lead to such a conclusion, the erroneousness of which is plain, when we consider closely the opinions given in these lectures, and the entire scope of his writings. Indeed, the mode by which he prepared himself for the duties of a physician is conclusive against such an idea. His leading thought on the matter was, that while the successful cultivation of medicine required the most enlarged training of the mind, the study

of disease could not be commenced too soon; and that after a certain period, it becomes a grave error to divert the mind of the student from observation and study at the bedside. It was against this still existing evil that he testified; for few held in higher esteem the observation of Davison, that the main ingredients of practical ability are requisite knowledge and cultivated faculties, which latter give to a man the command of another's knowledge, while the want of them deprives him of the command of his own.

In his address to the Dublin Medico-Chirurgical Society, a society of students, in 1836, he observes—

"Many causes contribute to prevent students from attaining to what after all should be the great object of their wishes—practical knowledge. The different sciences to which you are required to turn your attention successively, possess so many fascinations that you may attach to some an undue degree of importance; but be assured of this, that however accurate be your knowledge of anatomy, healthy and morbid; however skilful you may be in chemical theories and manipulations; however extensively you may have mastered the necessary portions of Botany; however well you are acquainted with the nature and properties of drugs; be assured, I say, that you have acquired all this knowledge in vain, unless you have diligently studied symptoms at the bedside of the patient, and have observed the consequences and causes of disease in the dead-room. In fact, in whatever other pursuits you may employ your afternoon hours, the morning should be always dedicated with earnestness to the hospital: from its wards all appearance of levity and inattention must be banished, for your neglect of the opportunities there presented for observation, loads you with a serious amount of responsibility, I had almost said of guilt. It is no light thing to have life

entrusted into your hands: we all are liable to err, we all commit mistakes; the rules of our art are not invariably precise and certain; but they only are guilty who have not used every opportunity of acquiring practical knowledge; he is doubly guilty, who, conscious of his neglect, embarks in practice, and commences with the decision and boldness true experience can alone confer. In this point of view, Gentlemen, your Society seems to have worked most advantageously, and we have observed with pleasure that since its foundation your hospital attendance has become more punctual, and your interest in the cases greater. The chief object of medical science is to relieve suffering and to save life: you must therefore anxiously watch the action of remedies, and by constantly noting down the effects of the treatment, learn to appreciate its merits, and apply it when required. Nor is this an easy task, or a simple study; some indeed have vainly imagined that the method of treating or curing disease, could be compressed within the limits of a few short directions easily deducible from some general principles, and easily applicable in any particular case; but it is not so. Gentlemen, we have as yet discovered no such general principles to serve as guides. This discovery presupposes a knowledge of the laws and relations of the vital powers, far beyond what we now possess: no, we must toil onwards by a much more laborious and circuitous route, and must commence by making ourselves thoroughly masters of a vast number of individual cases, assisted by the observations and the writings of practical men; we may afterwards proceed to arrange our knowledge, to classify it, so as to render it more available; analogy and induction are here our only, or at least our most valuable guides, and they will seldom fail to instruct us how to act when properly consulted.

"Many, indeed, aiming at acquiring the charaeter of medical sceptics, think they exhibit proofs of superior diserimination when they, with apparent eandour, make the confession that the more they see, the less eonfidence they have in the resources of medieine. This eonfession should be interpreted, not as a reproof to our art, but as a testimony of the want of skill of the would-be philosophieal assertor of so false a proposition. No, God be praised, our predeeessors have not toiled in vain; the anxious experienee of ages has not been recorded to no purpose; our art is, in truth, boundless in resource, and, when applied with ability, most suceessful. There are, indeed, some aeute, and many ehronic diseases, whieh baffle our powers of diagnosis, and defy our modes of treatment; such opprobria are, however, not numerous, when eompared with the great mass of eases eapable of eure or alleviation. The medieal sceptie, however aeute his powers of reasoning may be, and however he may labour to render plain subjeets obseure, and direet faets ambiguous, ean never rob the good practitioner of the pure, the inward joy he feels, when eonseious that he has snatehed a patient from the jaws of death.

"Be assured, Gentlemen, you are not assoeiated together, as the seeptie would have you believe, for an idle purpose, or a trifling objeet—you labour to attain a knowledge of the nature of diseases, and the means best adapted for their eure; you are zealously employed in studying the noblest of professions, that whieh seeks to alleviate human sufferings, and administer eonsolation and health to your fellow-ereatures. It is not mere book learning, it is not an aeeurate aequaintanee with the aeeessory or fundamental seienees of medieine, that enables the physieian and surgeon to arrest the progress of disease, and (what seems almost too

glorious for a mortal man) to scare from his vietim, the great destroyer, death. This the chemist cannot accomplish, this cannot be done by the anatomist, the physiologist, or the compounder and weigher of drugs. To combat disease and death we must attentively watch the symptoms which accompany the one and denote the approaches of the other, and must search among the productions so bountifully provided by the hand of nature, for the means of defeating, for a time at least, the mighty victor.

"To create life is the attribute of God; to preserve life is the noblest gift man has received from his Creator. Life and death are engaged in an eternal struggle—they succeed—they alternate—they displace, but never annihilate the one the other; they fill the world with their strife, but it is a strife where the antagonists contend, like night and day, each chasing but never overtaking each. Between life and death there is no twilight; the gladness and brightness of life end suddenly in the deep and awful darkness of death. Is it then given to man to warn back this dreaded power? Can man, even for a moment, retard the advances of death? Yes, we are permitted to relieve one another, we are allowed to exercise our reason in exploring the means of curing disease, and have been granted the power of applying these means successfully. Had man, like other animals, been gifted only with organs of destruction; had his reason been employed solely in increasing the power of his natural weapons of offence, then indeed he would have been an animal accursed on the face of the earth, and war and bloodshed would have been blessings if they effected only the destruction of so hateful a being—but it has not been so ordained. The possession and exercise of the healing art shed a kindly lustre over man's nature, and afford him the

means of practising the sweetest of all the offices of charity—curing his fellow-creatures; but if this be one of the goodliest fruits borne by the tree of knowledge, it cannot be attained, nor enjoyed by all; it can be reached only by him who, patiently labouring year after year, has perseverance enough to seek, by means of constant study and constant observation, this precious gift.

"I would not depreciate the utility of other literary pursuits, and do not wish to undervalue the studies or the objects of other professions. The natural historian is justly proud of a science, which constantly employs him in observing the works of his Creator; the chemist boasts with reason that his favourite study teaches him to lift up the veil which concealed some of the most precious and singular among nature's secrets; the astronomer examines the position and the motions of distant worlds, weighs the satellites of Jupiter, and follows the comet to the remotest verge of its eccentric orb; nay, he even ventures to predict its return after thousands of years, and feels no doubt that a late posterity will be called on to record the occurrence of the event he has prophesied.

"This is a glorious triumph of man's reason, and well may the votaries of astronomy and the physical sciences refer with pride to such victories over space and time; but is there not more of the Deity in a single particle of living matter, than in the whole inanimate mass of a planet or a sun? Is not Life the clearest, the most direct revelation of Himself, which the Creator has deigned to make?

"When all was without form and void, the Spirit of God moved, it is true, on the surface of the chaotic mass, but it did not enter into its pores until life was to be produced; then God breathed forth, and man rose vivified

by the divine expiration. This life, this direct emanation from the Deity, forms then the subject matter of your studies; to observe its laws is the privilege of the physiologist—to maintain it, to resist the encroachment of disease, or to defer the approach of death, is the hallowed end of medical science. This is assuredly one of the noblest functions of reason, and for nothing should man be more humbly grateful to his Maker, than for having conferred on him the power of relieving human suffering."

Finally, we may hold that there can be nothing more likely to excite the student to love his profession, and to labour for it, than to see his instructor remaining as his fellow-student; young in mental energy, and in the desire and acquisition of knowledge; for thus only is it given to us to resist the advance of time.

In reviewing the medical doctrine of Graves we find it to be essentially eclectic. The legitimate object of physiological medicine, according to him, was not the study of vital actions, but rather the investigation and arrangement of their effects. This doctrine is well illustrated by showing how medicine retrograded whenever a different course has been pursued, and by referring to the endless mazes of speculation which followed on the doctrines of Brown, and of the school of the Vitalists. The errors in practice and in pathology, and the necessary twisting of the truth to fit the theory, in the system of Broussais, are strong examples of the evil consequences of beginning at the wrong end, and of puzzling ourselves with systems based on the still unknown nature of vital actions, rather than on their effects. So long as we confine ourselves to these latter we advance in two directions; in the one, absolutely, by extending our knowledge of the mechanism of organs, and of course in applying that knowledge to the

treatment of their diseases; in the other, by approximation, if the writer may use the expression, for we are laying up data for the ultimate solution of the higher problem of the nature of life. This is well exemplified by reference to the structure of the eye, an organ which gives light to the body in more senses than one.

In his general pathology, great importance was attached to the action of the capillary system, and the *vis à tergo* theory of the circulation in health and disease was on every occasion combated by him; for this question bore strongly on that great revolution in practice, by which the lancet has become nearly discarded in the treatment of disease in this country. His arguments in favour of the independence and importance of the capillary circulation are beautifully illustrated by reference to the phenomena of the gravid uterus. Here we see not only vessels innumerable, but nerves developed without any increased *vis à tergo;* and the nerves, like the vessels, formed from the circumference to the centre. This subject of a temporary nervous development is one full of interest; and he declares his conviction, that, did our means of investigating the nerves equal those we possess in the examination of the vessels, we should find, that in inflamed parts the nervous matter increases, in many cases, as rapidly and as considerably in extent as the vascular.

The relation of morbid anatomy to practical medicine has been looked at by physicians in various points of view; and it becomes difficult to say which of their theories has been most injurious to the cause of practical medicine. The local change is not the disease; for, to produce it, a change in the vital action of the part must go before. It is, then, but a symptom; but yet not the less important, for the physical

alteration beeomes the most useful of symptoms, enabling us to discover the seat, the progress, and sometimes the intensity of diseased aetion. There is no physical sign of the first stage of any disease; and the period between the truly first stage, and that in which meehanieal ehange sufficient to give a physieal indieation oeeurs, varies infinitely, not only in different diseases, but in different cases of the same disease. But it happens, fortunately, that this period is generally so short, that the diseovery of the mechanical ehange can be made suffieiently early to enable us, as it were, to overtake the disease. Exaetly in proportion to the faeility and the aeeuracy with whieh we ean ascertain the nature and extent of the alteration, will be the progress of praetical medieine. But it was no part of this doetrine that we were to follow an anatomical theory of disease; for, in truth, the loeal or deteetible ehange is often not the seeond, but really the third link in the chain of phenomena which eonstitute a disease. Thus, in essential affeetions, we have, as the first eondition, a change affeeting the entire organism, in whieh it aets apparently under a new system of vital laws. Secondly, a speeial, loeal, but still vital or non-meehanieal alteration; and, thirdly, the anatomieal ehange. Thus, so far, at least in a large proportion of eases, is the follieular disease of the intestine from being the first ehange, and the loeal cause of fever, that it is actually the third in the series of phenomena. But the great faet is insisted on, that even in the non-essential diseases, lesion of structure does not neecssarily attend upon the most striking symptoms of disease. This is shown most remarkably in the elass of the neuroses. On the other hand, the attempt to classify diseases, ignoring their possible anatomieal alteration, and of founding a system of treatment

based on the existenee of this or that group of symptoms, is justly eondemned.

"Tell me the name of the disease," was the motto of the nosologists, "and I will tell you the remedy." But the names of a hundred diseases may be told, and aceurately told, without our being able to give the proper mode of treatment. A picture is drawn by Graves of a case of dropsy, in which hydragogues and diureties are successively administered on the nosologieal indieation, until the scene so distressing to humanity is closed. We are to found medicine, then, on no narrow basis. The aeeurate study of symptoms must be aecompanied, on the one hand, by an extended knowledge of physiology,—that is, the scienee of the effects of vital aetion; and, on the other, by an equally comprehensive view of pathological anatomy; and to all these we must add the effeets of therapeutic agents. Looking at the results of the full adoption of these principles carried out by the collective energies of the world, Graves observes, that—

"The reason of man is now more fully employed than at any former period; a vast store of mental power, a vast mass of mind is everywhere at work; what formerly was vainly attempted by the labour of a few, is now easily aecomplished by the exertions of the many. The empire of reason, extending from the old to the new world, from Europe to our antipodes, has encircled the earth; the sun never sets upon her dominions; individuals must rest, but the colleetive intelligence of the species never sleeps. At the moment one nation, wearied by the toils of the day, welcomes the shades of night and lies down to seek repose, another rises to hail the light of morning, and, refreshed, speeds the noble work of science."

In an earlier writing, the same idea is eloquently given.

Speaking of the progress of the human mind (See page 25 of the present volume) he observes—

"That since the invention of the art of printing, it has become steady and uniform. The stream of knowledge which, not many centuries ago, shallow and narrow, toiled painfully to wear away or avoid the obstacles that impeded its course, now fed by a thousand new sources, flows along, deep and rapid, sweeping away every obstruction, *and defying all human opposition.* Mankind having thus arrived at the maturity of colleetive intellect, we are every day surprised at the results obtained by the vast mass of mind now diligently employed in the acquisition of knowledge. What was formerly the termination of a science, is now but its commencement; what was formerly deemed unattainable, is now elementary; so that it is impossible to foresee how far improvement may be carried. A short and transitory existence has been allotted to our bodies; individuals die, and generations pass away, but the common intellect of mankind fears not the same fate, nor shares the same brief mortality."

It would be out of place to introduce here a detailed review of the *Clinical Medicine,* yet, as illustrating the author's mode of thinking and of working, the writer will refer to two of his leading subjects, viz., Cholera and Fever.

His views on the contagion of cholera are given in this volume (see page 364), but the history of its progress westward over the world is detailed by him in a suceession of elaborate papers in the first and second scries of the *Dublin Journal of Medical Science.* These papers, subsequently embodied in the second edition of the *Clinical Medicine,* must earn for Graves the title of the historian of this disease in

the Old and in the New World, from its rise in India to its appearance in England and Ameriea.

This review of the onward march of the pestilence seems conclusively to establish its contagious nature; it shows how in all cases it proceeded by the most direct route of human intereourse and traffic, and whether it crossed the highest mountain ranges, as in India, or traversed the oeean, or ascended rivers, making the towns on their banks the successive stages of its journey; the only common physieal cireumstance attending its progress was the intercourse of man with man.

Further, it is shown that, in no recorded instance, has cholera appeared in any locality sooner than it might have been brought from some infected plaee by the ordinary modes of communication. And again, that the rate at which cholera travels, varies with the rapidity of that communication, whether it be by land or by water. It seems to have had no fixed rate of progress; spreading in various directions, sometimes northwards, sometimes southwards, and occasionally changing its ordinary course, and moving eastwards, its route being determined, not by the points of the compass, but by the great lines of internal or international communication.

The results of this study of the new epidemic led Graves to a suggestion, the importance of which to the well-being of the human raee it would be hard to over-estimate. Referring to our ignoranee of the laws of epidemics, he proposed, with the view of determining these still hidden laws, that the diffcrent civilized Governments of the world should unitc in the wide establishment of medical observatories, in which, always in connection with a complete system of meteorologieal observation, carcful records should be kept of the

rise, progress, and eharaeter of disease, whether endemic or epidemie.

"While the art of navigation was in its infancy, and communication by land between distant countries unfrequent and insecure, the different races and families of mankind who dwell far asunder on the earth's surface were necessarily unacquainted with the appearance of new, or the existence of remarkable diseases amongst each other, and, consequently, that department of medical science which may with propriety be termed the Geography of Diseases, remained uncultivated. Now, however, we approach a new era, when the means of intercourse between the most distant nations have been so facilitated by the aid of an improved system of navigation, a commerce almost universal, and the daily increasing efficacy of steam power, that we may indulge in the rational hope of seeing the sciences studied after a new method, which will embrace within the range of observation, not merely the phenomena occurring in a single district or country, but those which take place over the whole surface of the globe.

"Already have the enlightened efforts of our own University, and the genius of one of its Professors, prompted the rulers of many kingdoms to join in an alliance destined to establish magnetic observatories in distant regions, so as to make the globe of the earth itself a subject of extended experiment; the philosophers of the new world have combined with those of the old, to examine simultaneously meteorological phenomena, and already have the records preserved by observers at sea and land, revealed the hitherto mysterious course of storms, and enabled us to map out the extent and direction of the shocks of earthquakes. When we investigate the physical changes which occur in our

planet, we are encouraged to repeat and multiply observations, in the hope of discovering general laws, whose application will enable us to explain the past and predict the future. But the surface of the earth abounds with beings in whom the creative powers of life display an order of phenomena more complicated and refined than anything existing in unorganized matter. But for this very reason, and on account of this superiority conferred on organized matter through the agency of vitality, each being thus animated is governed by laws which often seem incapable of extension even to other living creatures of the same species; and consequently we are led to expect an individuality, an insulation, among animals, which will prevent them from exhibiting changes occurring simultaneously among great numbers, and capable of being traced to the operation of general laws.

"A closer examination, however, proves that animals and plants are subject to the operation of physical agencies which act upon numbers of individuals at the same time, and thus give rise to great varieties of diseases. Such diseases should be made a special object of study; many of them are, as it were, fixed, stationary, and confined to certain countries and districts. Thus the goitre, the *tumidum sub Alpibus guttur*, has from the earliest times been endemic in the valley of the Rhone, and other parts of Switzerland; modern travellers have observed it in certain parts of South America, and in Kemaon, a subalpine department of Hindoostan. Agues, typhus, yellow-fever, elephantiasis, beriberi, Guinea-worm, yaws, and Egyptian ophthalmia, are chiefly confined to the inhabitants of certain districts, and with a host of other complaints, would afford ample materials for the geography of fixed diseases.

"On the other hand, there are affections of men and animals which travel from nation to nation, and tribe to tribe; sometimes these moving epidemics progress with such rapidity, that they speedily migrate over the whole earth: at other times they creep along with a slow and stealthy step, but their journey is continued year after year, until they have travelled round the world. The Asiatic cholera affords an example of the latter class, having been twenty years in compassing the earth; while influenza, an example of the former, often traverses the same space in a few months.

"Influenzas differ from each other, not merely as to their rate of traveling, but as to the extent of the earth's surface which they affect. Some, as that of 1782, spread from China all over the inhabited parts of Asia, Europe, and America; while others, as, for instance, the great influenza of 1837, did not reach the new world at all, although it passed the equinoctial line, and was severely felt at the Cape of Good Hope and in Australia. These facts are alone sufficient to stimulate our curiosity, and ought to direct the attention of philosophers as well as physicians, to the study of endemic and epidemic diseases; nor will their study be destitute of practical benefit, for were the rulers of civilized nations to bring into active operation a number of institutions, which, discharging the functions of *medical observatories,* should observe and record the appearance and symptoms of epidemics, many curious facts relating to their origin and progress would be soon brought to light, and we might then perhaps be enabled to arrive at a knowledge of some general laws respecting their motions. Thus, we could ascertain whether, as has been asserted, influenza always progresses from east to west, never from west to east;

whether, originating on one side of the equator, it often passes to the other?"

It need hardly be remarked, that if the establishment of such observatories were confined merely to the dominions of the British Crown, they might exist in almost every latitude, from the Arctic to the Antarctic circle. Beyond the United Kingdom stations might be formed at Gibraltar, Malta, China, and various points of the continent of India: southern Africa, Australia, and New Zealand, would give centres of observation for the southern hemisphere; while in northern latitudes, Newfoundland, Canada, and New Columbia, would be all available. In each station should be placed a medical officer, trained, not alone in practical medicine, but in the use of all instruments necessary for meteorological observation. He should, if possible, be acquainted with natural history, in the broad sense of the term. The duties of such an officer should be to rêport not only on the phenomena of disease, simply considered, but on the concurrent conditions of the atmosphere, whether with reference to its pressure, temperature, electric condition, its cooling force, as observed with Professor Osborne's sensation thermometer, and its evaporating power as measured by the instrument of Dalton, which has been recently improved by Professor Haughton.

We owe to Graves the introduction of the use of the acetate of lead in the treatment of cholera in this country; for although it had been previously recommended by Dupuytren, and was actually employed in the first epidemic in Dublin, in 1832, at the Cholera Hospital, yet it was from his advocacy that the Irish profession learned to employ this remedy with confidence. And it is interesting, as the result of a clinical experiment on a vast scale, that of the many thousands of patients in cholera treated, during the last epidemic, by

this medicine, no case has been recorded of the appearance of saturnine poisoning during convalescence.

In a lecture on Spasmodic Cholera, delivered in 1826, Graves predicted the arrival of the disease. It did not reach Sunderland until 1831. This prediction, he modestly states, was not his own, but that of his friend and relative, Bishop Brinkley. Even at the cost of digression the writer cannot refrain from giving another instance of the powers and foresight of that remarkable man. Nearly twenty years before the failure of the potato crop in Ireland he predicted that occurrence and the attendant famine, and in a letter to Graves, following up the consequences of the event, he dwells on the horrors of the want, the pestilence, the emigration, the depopulation, and the general ruin which would follow the inevitable change in the social system of Ireland. So deeply did all this affect him, that for days and nights the contemplation of the sorrows in store for his adopted country, deprived him of rest.*

In reviewing the portions of the *Clinical Medicine* which are devoted to Fever, we are at once struck with the absence of that tendency to dilate upon fine or doubtful distinctions, which is so often met with in medical writings. We have no long disquisitions on the differences between typhus and typhoid fever, with which so many of our brethren have been lately occupied; nor, again, have we arguments to show that dothinenteritis is a mark of civilization and comfort, while its absence in fever is characteristic of the want and degradation of the Irish branch of the Celtic race. He did not form any theory of fever; but he did much

* Dr. Brinkley, of Caius College, Cambridge, was Professor of Astronomy in the University of Dublin, and Astronomer Royal of Ireland, in 1790. He was subsequently elected President of the Royal Irish Academy, and was consecrated Bishop of Cloyne in 1826.

better, in diligently studying its symptoms, watching how they were grouped, and in what order they followed each other; and lastly, in observing the effects of treatment in their progress. For, he well remarks, that the knowledge we possess of the nature of fever is of a negative character, telling us what it is not, rather than what it is. The writer is anxious to insist on this point, perhaps, indeed, because it coincides with his own convictions, as well as on the following, that after the experience of a life, and in circumstances the best adapted for observation, Graves arrived at the conclusion,—that the several forms of continued fever in this country are varieties, not distinct species, differing by any anatomical character. It may be held that, in this country at least, there is no essential difference between typhus and what is called typhoid fever. We know that the same contagion will produce both forms; and, again, that these forms are mutually convertible. Before physicians indulge in theories, as to any particular disease, it is necessary that they should study it in different countries. Had Broussais studied fever in Ireland, the so-called physiological doctrine, so far at least as fever is concerned, would never have been announced, nor the error committed of taking the anatomical consequence for the cause. Had Clutterbuck followed a similar course, we should never have had the cerebral theory. Had Rasori been a physician to an Irish fever hospital, would the contra-stimulant doctrine have existed? And, to come to later times, we may safely affirm that the distinctions of recent British and American writers would have been at least less strongly drawn, had they studied the disease in our hospitals.

Let us briefly enumerate the leading points of the doctrine of fever, as given in the *Clinical Medicine*.

1st. Its existence as an endemic disease in Ireland, but occasionally taking an epidemic character.

2nd. The existence of a general and peculiar character in each epidemic, subject, however, to modifications at different periods of the epidemic, and in different places, even at the same period of the disease. This had already been established by Cheyne and Barker.

3rd. The contagious quality of all the forms of continued fever in this country; but especially the maculated form, the occurrence of which, however, seems to establish a greater immunity in the individual affected, from subsequent attacks than is observed in other varieties.

4th. The necessity of avoiding a routine treatment, and the importance of the anticipative use of nutriment.

5th. The doctrine, that fever in Ireland was to be attributed neither to miasmata nor to deficient food.

If we pause for a moment to consider some of these points of doctrine, our time will be usefully employed. It was plain to Graves, as it must be to all unprejudiced men, that in this country fever is both epidemic and contagious, and that fever having commenced in any district or number of districts, may extend itself under either of these agencies. The arguments, then, of epidemists who deny contagion, or of contagionists who deny the epidemic origin of fever, may be put aside, for the great facts of the simultaneous outbreaks and disappearances of fever over so large an extent of country, are sufficient to prove its epidemic character; and, on the other hand, its transmissibility from individual to individual is a truth which it is idle to gainsay. Those who deny contagion have a seeming advantage in the argument, as, during the prevalence of an epidemic, the sickening of A or B may be plausibly attributed to the general

effeet. There are but two modes, with which the writer is aequainted, of establishing the existenee of contagion. The one is that of referring to a eertain oecurrence or set of oceurrenees during an epidemic, and then to calculate the ehanees against such events, supposing that the disease was not eontagious. This mode was adopted by the late Dr. Whitley Stokes. He did not trust himself to make the calculations, but submitted the problems to Bishop Brinkley, who was not only a first-rate mathematieian, but especially skilled in that part of mathematieal seienee which relates to the doctrine of chanees.

"I proposed," says he, in his Observations on Contagion, "the following problems to a friend particularly acquainted with this species of computation:—

"Problem the first: An epidemic prevails so severe that one out of every seven sickens. A family of twelve is selected in a particular district before the epidemic has visited it. What is the chance that eleven out of the family shall take the disease, supposing the sickness of one of the family does not promote the sickness of another, and supposing the family not unusually liable to disease?

"Answer: The probability against the event is 189,600,000 to 1, if the population amount even to 7,000.

"Problem the second: The same general conditions being assumed, and also that the number of the inhabitants in the district in question is 7,000, what is the chance that, in any family of 12 within the district, 11 will sicken?

"Answer: It is above 300,000 to 1 that no family of 12 persons, in a population of 7,000, will have 11 sick. All this aeeording to the condition, that the sickening of one does not promote the sickening of another."

The second kind of evidenee is that deduced from the

great proportion of cases of the disease observed among those who attend on the sick. The events of 1847 and 1848 are still fresh in our memory, and if the deaths of so many of the physicians and surgeons in Ireland during that season of calamity, confusion, and error, be not an answer to the non-contagionist, the writer knows not anything that could convince him, nor does he believe that his mind would be capable of being convinced, or of receiving the truth at all.

Another part of these doctrines claims our attention. It was a strong opinion of Graves, not only that the former epidemics in Ireland could not be attributed to deficient food, but that even the desolating epidemic of 1847 and 1848, which followed or attended the famine, was attributable to other causes; and there is some reason for the belief, that the crowding together of the famished people into workhouses, then so recently established, and again into the towns and other places where sustenance could be expected, was the great cause of the outbreak and the virulence of the epidemic. Whether simple want affecting a population is by itself sufficient to cause an epidemic of fever, is a question which, fortunately, we are not in a position to solve satisfactorily, nor can we yet say whether simple inanition can develop a typhus fever in an individual. That it may cause a condition similar to fever, we know from the effects of inanition on the sufferers on board the "Alceste" and the "Medusa;" but whether this condition of raging thirst, dissolution of the blood, and cerebral excitement, is truly one of typhus,—of a diseased condition capable of reproducing itself by a special contagion, is a question still unanswered. During the famine, many cases of protracted starvation were admitted into our wards in the Meath Hospital. They had all a dreadful similarity. The

history, symptoms, and even the physiognomy of these unhappy patients seemed to be the same. Weak, eold, and shriveled, they lay uneomplaining, more like eadavers than living beings. They seldom asked for food or even drink. The pulse was quiek and feeble; the skin earthy, and of the colour of parehment; and the tongue pale. It is, however, true, that in several cases in whieh, by the most eautious and graduated exhibition of nourishment, this state of eollapse was at last got over, the patient suddenly showed the symptoms of the worst form of putrid fever.

The evil eonsequenees, however, — the demonstrable effeets of over-erowding in produeing an outbreak of fever, were never more strongly shown than by Graves. And it really seems probable, that, injurious as sueh a proceeding must be with people, natives of any eountry, it will be so to a greater degree when we deal with the inhabitants of Ireland. Is this owing to any speeiality belonging to the raee? Is there a pathologieal, as well as a physiologieal stamp, on the raees of men? Or is it that soil, elimate, and other eireumstanees, make the Irish more subjeet to typhus? This mueh is eertain,—and it is insisted on in the *Clinical Medicine*,—that other affeetions, even loeal diseases, whieh elsewhere would run their usual eourse, in Ireland exhibit a marked tendeney to take on the typhoid type.

After speaking of the spread of Irish fever in Liverpool, and the other large towns of Great Britain, where this compression of the poorer population is so great, Graves makes this appalling statement:—

"The number of emigrants who left this eountry in the year 1847 for Ameriea is ealeulated to have been more than double that of the previous year, and, as a neeessary eonse-

quenee, the ships were all not only erowded, but packed with passengers. There was seareely a single ship in which typhus fever did not break out on the passage; and the mortality, as we might expeet, was still greater than on land. From authentie doeuments now before us, it would appear, that the number of Irish who emigrated to British North Ameriea in 1847 was, at the lowest eomputation, 74,539: of these, 5,293 are reported to have died on the passage; 8,563 were admitted into the Quarantine Hospital at Grosse Island, of whom 3,452 are said to have died,—an average of 40 per eent.; and of those who were taken into the Marine and Emigrant Hospital at Quebee, or who had proeured lodgings in that eity up to the 9th of October, there died 1,041, an aggregate of 9,786 deaths, up to the period of the survivors leaving for Montreal,—an average of over 12 per eent. From the aeeount whieh we have had of the losses of individual ships, I am quite sure that this statement is anything but overdrawn. The 'Ceylon,' with 257 steerage passengers, had 117 deaths, and 115 in fever on her arrival. The 'Loosthank,' with 349 steerage passengers, had 117 deaths, and only 20 eseaped fever. Three vessels, taken together, lost 275 passengers. The return of the Health Offieers at New York shows an aggregate of 957 deaths at sea on board of vessels eoming from European ports, and likewise that three-fourths of the number admitted into the Quarantine Hospital (most of them Irish) have been taken from British vessels."

But whatever view we take of the eomparative effeets of want, or of overerowding, in produeing disease, it seems sufficiently plain, that the doetrine, that if there be no want there will be no fever, is to be taken with eertain limitations. Doubtless an abundant supply of food, if the people had the

means of purchasing it, was a thing to be desired; doubtless the eleemosynary distribution of food was also good, if to obtain this great boon the people had not been forced to congregate into masses, and to suffer the consequences of want, not indeed of food, but of pure air and cleanliness. The opinion of the writer is, however, that we should not attribute all the evils through which we have passed, too exclusively to this or to that cause; and that however injurious may have been the close congregating of so many miserable men, women, and children, into certain localities, other causes must also have operated. Want, contagion, and epidemic influence have over and over again produced fever in Ireland, when there were no such things as Relief Acts, or Government aid, or Poor Laws in the country; and if many were lost, perhaps ignorantly, let us think on the number saved. We cannot be suddenly wise. Nations, as well as individuals, must purchase experience, even though the cost may be ruinous. And whatever fault we may find with the modes adopted for extending relief to the sufferers in the famine of 1847, we must applaud the intention, and be grateful for the efforts that were made.

To return to the general principles advocated, not only as to the natural history, but the treatment of fever, we find that in no one sense was Graves a routinist, unless in attention to the support of the patient, by nutriment given from an early period. The doctrine of a general inflammatory state in fever, or of the dependence of the latter on local disease, was rejected by him. Yet in his hands, stimulants were employed with the same watchful care as other remedies, and were not used, as of late, indiscriminately, or from any assumed physiological theory.

The experiments of Beaumont, which were relied on to

prove that the existence of fever suspended assimilation, were taken at their true value, and Graves insisted on the necessity of our not permitting a fever patient to suffer from starvation. "In a patient," he says, "labouring under fever and a protracted abstinence, whose sensibilities are blunted and whose functions are deranged,—it is not at all improbable that such a person will not call for food, although requiring it; and if you do not press it on him, and give it as medicine, symptoms like those which arise from starvation in the healthy subject may supervene, and you may have gastro-enteric inflammation or cerebral disease as the consequence of protracted abstinence. You may, perhaps, think it unnecessary to give food, as the patient appears to have no appetite, and does not call for it. You might as well think of allowing the urine to accumulate in the bladder because the patient feels no desire to pass it. You are called upon to interfere where the sensibility is impaired, and you are not to permit your patient to encounter the terrible consequences of starvation because he does not ask for nutriment."

This quotation calls to the mind of the writer a saying of Graves worthy of being recorded. He was going round the hospital, when on entering the convalescent ward, he began to expatiate on the healthy appearance of some who had recovered from severe typhus. "This is all the effect of our good feeding," he exclaimed; "and lest, when I am gone, you may be at a loss for an epitaph for me, let me give you one, in three words:—

"He fed Fevers."

The limits of this volume will prevent even a cursory review of the special contributions to Practical Medicine which we owe to Graves; some of the more important may be simply enumerated:—

1st. The employment of food and stimulants in fever, even from its earlier periods; in other words, their use by anticipation.

2nd. The exhibition of the acetate of lead conjoined with opium in spasmodic cholera.

3rd. The development of the laws of pathological reflex action, as given in his Lectures on Paralysis, in which he has anticipated the views of Marshall Hall.

4th. The employment of tartar emetic and opium in the delirium and insomnia of typhus fever.

5th. The method of operating for the evacuation of hepatic abscesses by promoting adhesion between the hepatic and parietal peritoneum.

6th. The observation of the latent periodicity in intermittent fevers.

7th. The demonstration of the independent action of the capillary system in health and in disease, and the practical applications of this doctrine in the treatment of disease.

8th. The account of the yellow fever as it appeared in Dublin in 1826.

9th. The observations on symmetrical diseases.

10th. The nature and functions of the lymphatic system.

11th. The influence of position on the pulse, in health and in disease.

12th. The description of the disease lately termed Exophthalmia cachectica.

It is difficult to estimate the importance of the doctrine, that although the fevers of the tropics may vary in certain phenomena, according to seasons, locality, or special epidemic nature, yet, that in all essential characteristics, they are of the same nature as those met with at home. When we remember that to fever, in a great measure, is to

be attributed the mortality in our armies and navies, no matter in what part of the world they may chance to be, it is no slight matter to think that in the wards of a fever hospital at home, the student may learn the pathological nature and the principles of treatment of those diseases with which, in warm regions, he may have to be confronted. As bearing on this most important question, the writer gladly quotes from Dr. Dundas, whose opinions have the weight which a large personal experience of tropical disease can give.

"I am not aware whether Dr. Graves, of Dublin, has visited hot climates; but in his valuable work on *Clinical Medicine* he observes, that 'there is not so much difference between the diseases of Ireland and of warmer countries, as has been imagined; they differ, it is true, as to their degree, but not as to their pathology.'

"Now this is a remarkable statement; and, supposing Dr. Graves had not himself visited tropical countries, it is strongly indicative of the genius of the man; for, of the absolute truth of the doctrine, here so broadly laid down, there exists not the shadow of a doubt. Dr. Cormack justly remarks, 'were this doctrine more generally appreciated, the accounts of the different fevers unfolded to us would, perhaps, present less picturesque and piquant, but certainly simpler and truer pictures of disease.' Most undoubtedly they would.

"The parallel, moreover, drawn by Dr. Graves, between the Dublin and the tropical yellow fever, admits of no dispute; the correspondence is complete."*

In connection with the subject of fever in Ireland,

* See *Sketches of Brazil, &c.*, by Robert Dundas, M.D. London, 1852, page 28.

Graves' warm advoeaey of the claim of the Dispensary Surgeons and Physicians throughout the eountry, during the disastrous epidemic of 1847 and 1848 eannot be passed by without notiee. It was one of the few oeeasions, if not the only one, on whieh he directed the powers of his mind to any subjeet of medieal politics; and in his letter to the Board of Health* he dwelt strongly on the faet, that the adviee of the chartered medieal bodies in the eountry had not been sought for by the authorities. The time was one of great exeitement, publie fear, and professional discontent, and with all the ardour of his nature he lent his aid in upholding the elaims of his brethren at large to a more liberal remuneration for their public and truly perilous services. Years have now passed by since those days of darkness, when in one year, 1847, nearly 7 per eent. of the Irish praetitioners died, the great majority falling vietims to eontagious disease; and though the wisdom of pressing a elaim for higher remuneration at sueh a crisis has been questioned, all must admit and admire the fearless devotion of the Profession throughout the land in that season of pestilence and of ruin.

It would be unjust to the memory of Graves were the following tribute to his eharaeter and works, by Professor Trousseau, omitted in this notice. It is eontained in a letter to the translator of the *Clinical Medicine*, and appears as a preface to the Freneh edition of that work :—

"For many years I have spoken of Graves in my Clinieal Leetures; I reeommend the perusal of his work; I entreat those of my pupils who understand English to consider it as their breviary; I say and repeat that, of all the practical works published in our time, I am aequainted with none

* See *The Dublin Quarterly Journal of Medical Science*, 1848.

more useful, more intellectual; and I have always regretted that the Clinical Lectures of the great Dublin practitioner had not been translated into our language.

"As Clinical Professor in the Faculty of Medicine of Paris, I have incessantly read and re-read the work of Graves; I have become inspired with it in my teaching; I have endeavoured to imitate it in the book I have myself published on the Clinique of the Hotel-Dieu; and even now, although I know almost by heart all that the Dublin Professor has written, I cannot refrain from perusing a book which never leaves my study.

"Graves is an erudite physician; while so rich in himself, he borrows perpetually from the works of his contemporaries, and at every page brings under tribute the labours of German and French physicians. Although a clinical observer, he loves the accessory sciences; we see him frequently having recourse to physiology, in the domain of which he loves to wander; to chemistry, with which he is acquainted, which he estimates at its true value, and to which he accords a legitimate place. He often reminds me of the greatest clinical teacher of our day, Pierre Bretonneau, an able physiologist, a distinguished chemist, a learned botanist, an eminent naturalist, who incessantly, in his lectures and conversation at the Hospital of Tours, found in all those accessory sciences, with which he was so conversant, those useful ideas and ingenious views, which he subsequently applied with unusual felicity to the study of our art.

"Shall I now say what are, in Graves' work, the most remarkable and most important lectures? To be just I ought to indicate all in succession; there is not one of them, in fact, which does not abound in practical deductions;

there is not one which does not bear the impress of that admirable and powerful faculty of observation which distinguishes among all, the physician of the Meath Hospital. The lectures on scarlatina, paralysis, pulmonary affections, cough, headache, have acquired an European reputation, and the interest with which they inspire every attentive reader is assuredly their best panegyric.

"There are, however, two points to which it is important to call particular attention.

"Graves has devoted a great many lectures to typhus fever, which so cruelly decimates Ireland. It might be supposed, at first sight, that the study of this portion of his work is not of much importance to us French physicians, who fortunately have not to contend with the formidable malady in question; this is a mistake. All the precepts of the author upon the treatment of this pyrexia are so applicable to the severe forms of our typhoid fever, that we shall with the greatest advantage consult this remarkable work; moreover, the maxims relating to regimen have become the guide of the practitioners of all countries: it is they which now direct us in the treatment of putrid fever. And nevertheless, when he inculcated the necessity of giving nourishment in long-continued pyrexias, the Dublin physician, single-handed, assailed an opinion which appeared to be justified by the practice of all ages; for low diet was then regarded as an indispensable condition in the treatment of fevers. Had he rendered no other service than that of completely reversing medical practice upon this point, Graves would, by that act alone, have acquired an indefeasible claim to our gratitude.

"On the other hand, I cannot sufficiently recommend the perusal of the lectures which treat of paralysis; they

contain a complete doctrine, and this doctrine has decisively triumphed. The sympathetic paralyses of Whytt and Prochaska have now their place assigned in science, under the much more physiological name of reflex paralyses, and the Dublin Professor is the first who has studied with exactness their etiological conditions, as he is the first who has made known their pathogenic process. Anticipating by many years the admirable works of Marshall Hall, he has comprehended, he has seen that anomalous peripheric impressions may react upon any section of the medulla, and determine at a distance disturbances of movement or of sensibility; he has, in a word, created the class of peripheric or reflex paralyses, and he has clearly established the relations existing between these paralyses and acute diseases. Unhappily these remarkable lectures have remained a sealed letter for the majority of French practitioners; but it is time to render to the physician of the Meath Hospital the justice which is due to him; it ought to be known that Graves is the creator of this new doctrine which has profoundly modified, within a few years, the pathology of the nervous system; it is right, in fine, to refer to its true author the suggestive theory of the paralyses and the convulsions of peripheric origin.

"You have, then, sir, done a very useful work in publishing Graves' Lectures. You have rendered a great service, if not to beginners,—who will perhaps not find in them the elementary ideas which are necessary to them,—at least to physicians, who must understand the reasons of instinct and intelligence by which they ought to allow themselves to be guided in the difficult paths of practice; who are called upon to assist in the doubts, embarrassments, and perplexities which trouble the conscientious man when he is engaged in

those obscure cases which so frequently present themselves in the wards of an hospital.

"Graves is often empirical. What true clinical observer can avoid being so? But he is so only in spite of himself. He seeks, he points out the reasons which determine him; he discusses them, and he conducts his pupil step by step from the theory, occasionally too ingenious, to the application, which is always useful, though often unexplained.

"Graves is a therapeutist full of resources. For the majority of French physicians his medications present something unusual, because the agents he employs are rather less used in France; but we learn in his lectures the medicine of our neighbours at the other side of the Channel—a medicine strange to us, as ours is to them. We learn in them the methods most relied upon in the United Kingdom, and the remedies to which our English colleagues give the preference.

"I freely confess that I had some difficulty in accepting, notwithstanding the imposing authority of Graves, what he states of the influence of certain remedies, such as mercurials, essence of turpentine, spirituous preparations, nitrate of silver, &c.; but the Dublin Professor speaks with so much conviction that I ventured to follow his precepts, and I must say that my early trials very soon encouraged me to adopt unreservedly what at first I accepted only with misgiving. There is not a day that I do not in my practice employ some of the modes of treatment which Graves excels in describing with the minuteness of the true practitioner, and not a day that I do not, from the bottom of my heart, thank the Dublin Physician for the information he has given me.

"Graves is, in my acceptation of the term, a perfect clinical teacher. An attentive observer, a profound philosopher, an ingenious artist, an able therapeutist, he commends to our admiration the art whose domain he enlarges, and the practice which he renders more useful and more fertile.

"We shall, therefore, all be much indebted to you, my dear confrère, for having rendered familiar to us an author unfortunately too little known among us.

"A. TROUSSEAU."*

As might have been anticipated, the efforts of Graves' mind were by no means confined to subjects purely medical. For all the events of the time, and more especially for those which concerned the advance of civilization—for discovery—the struggles of a people for freedom—or the military undertakings of his own country, he ever showed a continued, but not an empty sympathy. Many important writings, to which his name is not attached, were contributed by him as leading articles in the public press, all distinguished by a careful preparation, and a singular knowledge of the history, topography, the political condition, and material resources of various countries. Among the events of the time which most interested him may be mentioned the Hungarian Revolution, and the war in Affghanistan. His history of the latter event is a good example of his powers of investigation and arrangement.

Commencing with an examination of the state of English rule in India previous to the interference by Lord Auckland in the affairs of Affghanistan, he proceeds to sketch the

* From *The Medical Times and Gazette.*

physical characters of the country invaded, and the tremendous strength of its natural defences. At this time the Khoord Cabool massacre had taken place. General Nott was beleaguered in Candahar, the heroic Sale at Jellalabad, and Palmer at Ghuznee. He showed, however, that although the Khoord Cabool Pass, where the bones of thirteen thousand of our soldiers lay bleaching, could not be made available for the entrance of a relieving force, yet that our troops might enter Affghanistan by the way of Scinde and the Bolan Pass, at the mouth of which part of Lord Keane's army was already lying. An interesting letter from a personal friend in the camp at Dadur is given, in which the fact of two bags of Venetian sequins being tendered by a native merchant, as part payment for a draft on the Bengal Government, is mentioned. These sequins were probably brought to Asia by the Venetians themselves in times long past, when Venice enjoyed an Eastern trade, and her coins circulated even as far as China.

After reviewing the prospects of our forces in Affghanistan, he says:—

"The preceding speculations about the results of the campaign have been made on the supposition that the Affghans will everywhere rise *en masse* against the English, and will make their expulsion not only a matter of national policy but of religious enthusiasm. A fanatical and religious war would be truly formidable, and would, if the Affghans were united, end in the total destruction of the Feringhees or Infidels, as they call the English and the Hindoos. Notwithstanding the inglorious beginning of the war, and the melancholy fate of so many brave soldiers; and knowing, as we do, the incapacity of Eastern Shahs, the changeable and fickle character of Orientals, the fear they have hitherto

entertained of the British, and the probability of discord among the Affghan chiefs themselves, we still indulge a hope that the storm may not prove as great as it threatened to be.

"One thing is clear, that we must abandon Affghanistan the moment we have vindicated our tarnished honour, and rescued our beleaguered troops.

"God grant that we may be enabled to effect these objects, even though they cost us another seventeen millions, the sum already expended in this unholy war."

It will be remembered that the leading argument in favour of the war was the probability of the success of Russian intrigue among the Affghan chiefs, which would prepare the way for the occupation of India. The fallacy of this argument is strongly shown by him; but he takes occasion to dwell on the danger that would follow were the affections of the native troops interfered with, or their loyalty shaken by mismanagement; and he indicates even then, symptoms of that disaffection which eventuated in the disastrous mutiny of 1857.

Speaking of certain malcontents at home, who had prophesied the downfall of our rule in the East, he says:—

"One of the observations most commonly used by such persons is, that the British, like the Roman empire during its latter periods, is in a state of decline; and as the one lost province after province, so must the other be speedily shorn of the extensive colonies, islands, and we had almost said continents, which acknowledge her sway in either hemisphere.

"Half a century ago the French compared the power of Britain to that of Carthage; but as fate willed it otherwise, and the mistress of the sea did not fall, but has gone on adding kingdom to kingdom, and empire to empire, her

disappointed enemies have been obliged to prophesy anew, and now threaten us with the fate of Rome; but we disavow the comparison, for Britain's prosperity differs in all essential points from the prosperity of Rome, and the ties which bind it to its distant possessions are very different from any that existed in ancient time, and cannot be severed by the means which led to the dismemberment of the Roman empire. The Romans were essentially conquerors and plunderers. They were indeed tolerant as to religion; and as easily adopted the gods as the vices of the vanquished. If they, as they often did, improved roads, increased commerce, provided for internal tranquillity, and the just administration of the laws in a province, they did all this merely to render it more productive, in order that they might afterwards rob to greater advantage. In consequence of this system, wealth everywhere flowed towards Rome, and the whole world was impoverished to enrich the 'city.' To what extent the prætors carried their exactions, and how difficult it was to expose their iniquity, or to bring them to justice, may be learned from the speeches of Cicero against Verres; and yet Sicily was Rome's nearest, fairest, and most valued province. The strongest proof of the grinding extortions practised by the Romans is the fact mentioned by Cicero, that the people of the subject provinces had actually formed the design of petitioning for a repeal of the existing law against extortion; and 'there can be no doubt,' argues Cicero, 'that they would be greatly benefited by the change; for in that case the governors sent into the provinces would be content to plunder only to a sufficient extent, to accumulate immense fortunes for themselves. At present they are obliged, in addition to this, to acquire enough to serve as bribes to their future judges at home.'

"Thus, Verres had been heard to boast, that he should be well satisfied to expend the proceeds of two years of spoliation in defeating the ends of justice, provided he were to retain for himself the profits of the third. Pompey deposited in the Treasury of Rome four millions sterling, and Cæsar six millions, gained from enemies not more vanquished than impoverished. Such was the connection between Rome and her provinces.

"England, on the other hand, not only wields the trident and the sword, but walks among the nations in a shape unknown to antiquity—the majestic dispenser as well as the receiver of wealth. As England grows rich, so do her provinces; for however wide-spread the fame of some potentates, whose dominions are now merged in our Indian empire, their wealth consisted of barbaric gold and precious stones, accumulated by hoarding or acquired by pillage; and in proportion as the state of the monarch was splendid his subjects were impoverished.

"The state of India under our rule is different. The palaces of Delhi may have fallen into decay, but the humble dwellings of the farmers display increased comforts. England has become richer by conquering India, and India richer by being conquered.

"It is because she is at once a commercial, a manufacturing, and a warlike nation that England has been enabled not merely to acquire kingdoms, but to retain them; and for this reason, what Alexander, Tamerlane, and Nadir Shah failed to accomplish, has been achieved by the arms of a company of merchants; and *it is because they are merchants* that they have not merely founded but consolidated and established our great Indian Empire.

"In this instance, an enlightened perception of self-

interest has with just discrimination pointed out, that we can only derive permanent revenues from a country when its natural resources are cultivated and improved, and our intercourse with it maintained by a liberal and well-adjusted interchange of productions. On this principle has England acted towards India, whose natural productions and indigenous arts and manufactures have been encouraged; and thus has native industry reaped its reward, while the population of India acquires materials for purchasing English goods and manufactures.

The second paper on Affghanistan presents us with a well-considered and learned disquisition on the origin of the Duranee and Giljhian tribes, with notices of the Eusofzyes and the Khyberees, who inhabit the north-eastern parts of the country. The author then gives a history of Affghanistan, from the invasion of Alexander the Great down to the twelfth century, when the Affghan kingdom of Delhi was founded. In the fifteenth century, Sultan Baber, descendant of Tamerlane, conquered Cabool, and, like his predecessor, advanced to the subjugation of India. This being effected, he returned to Cabool, where his tomb is still an object of veneration. After his death, the Affghans resumed their independence, but the Persians soon regained their short-lived possession of the country, again to be expelled by the Dooranees and Giljhies, one of their chiefs seizing on Ispahan, and mounting the Persian throne, from which his successor was expelled by Nadir Shah, whose popularity was such that he ultimately made himself King of Persia. His death, by assassination, led to the return of his Affghan troops to their native country, under the guidance of Amed, who was crowned king, and assumed the title of Dooranee.

He added the Punjaub and Cashmere to his dominions,

subdued Khorassan and the kingdom of Balkh, and rendered Scinde and Beloochistan tributary to the throne of Cabool.

This history is then followed during the contentions of the sons of Amed down to the expulsion of Soojah by Dost Mahammed; his flight to the court of Runjeet Singh and his subsequent escape to Loodiana, where he became a pensioner of the British Government.

The subsequent events leading to the occupation of the throne of Cabool by Dost Mahammed are then given, and the narrative of the war admirably elucidated by a series of the letters of Colonel Dennie, furnished by Dr. Steele, which were never before published. This officer, well styled the very Diomede of the British army, fell in the memorable sortie from Jellalabad, in April, 1842, when Sale made the desperate attempt to fight his way to Peshawur, a distance of about seventy miles. The centre was commanded by Colonel Dennie, the right by Captain Havelock, and the left by Colonel Monteith. "Colonel Dennie rode in front, and when within a few yards of the fort, received a ball in the hip, and before he could witness the glorious termination of the action, this devoted soldier breathed his last."

On these letters, twenty-three in number, bearing dates from Landour, Shikarpore, Candahar, Cabool, Syghan, Ghuznee, and Gundamuc, Graves remarks:—

"If they evince a greater degrce of egotism than suits the taste of *general readers*, the latter will please to recollect that for them they were never intended, and that the value of such productions, and the charm they convey to distant and beloved relatives, consist chiefly in the narration of deeds, however insignificant, which engross the time and attention of the absent friends. But making every allowance for this peculiarity, let us ask,—Do these personal

memorials magnify Colonel Dennie's exploits beyond their real importance? Let it be borne in mind that it is to him, who voluntarily commanded the storming party at Ghuznee, who gained the important victory at Bameean, who conducted the forces from Khoord Cabool to Gundamuc, and who in the brilliant sortie from Jellalabad, gloriously fell, we are indebted for nearly all that we have reason to be proud of in the military operations conducted by our armies in Affghanistan."*

In the biographies of many remarkable men, especially in latter times, the details of their social or domestic life are dwelt on, and for no conceivable purpose but that of satisfying an intrusive curiosity. The writer believes that such a course is in every way to be reprehended. Again, to give publicity to any writings of an author which he himself has thought fit to retain, seems also to be unjustifiable. In the present case, however, the writer has, through the kindness of the Archdeacon of Clogher, and of the representatives of the late Dr. Perceval, received some letters written by Graves during his first visit to the Continent, and which he expressly directed should be circulated among his many friends. This latter circumstance will be the apology for introducing here a few extracts from these letters.

Naples, December 21st, 1819.

* * * * * * *

As I am upon the subject of satires, it will not be out of place that I mention one made by a celebrated Italian author, himself a nobleman, upon the character of the Italian nobility, which he thus briefly describes:—"Or superbi, ora umili, infami sempre."

* "Narrative of the War in Affghanistan," see *The Dublin University Magazine*, vols. 19 and 20.

When Napoleon thought fit to imprison the present Pope, whose dominions then lay open to every invader, and from whose influence he could have had little to dread, the following from the Book of Job, was written upon the door of the house in which the General sent to take the Pope prisoner lived:—"Contra folium quod vento rapitur, ostendis potentiam tuam." When in Rome the Pope has been termed "folium quod vento rapitur;" may we not conclude that the temporal power of Rome is again dead; indeed, at present the kings of the earth seem as little influenced by the authority of the representative of St. Peter, as by that of the remnant of the Roman senate, for there still resides in the capital *one* senator. When the Papal authority had made Rome a second time mistress of the world, when the bulls of her Christian Pontifex Maximus bore a sway as extensive as formerly did the edicts of her Pagan *imperial* Pontifex Maximus, Rome's aspiring genius rising from amidst the tombs of her ancient heroes, seemed to console herself for the loss of her former power; but her consolation is now passed, and she stalks, the shadow of a shade, between the Vatican and the palace of the Cæsars, mourning over the ruins of universal empire, twice gained, and now lost for ever. I say for ever, because the character of its inhabitants, particularly the higher orders, is now so degraded, that there seems to be little chance of Italy's recovering her rank among nations. Whatever may have been the other causes which contributed to effect this degradation of character, it seems to me to be chiefly owing to the almost total annihilation of virtue which took place under the Emperors, a period when poverty and obscurity seem to have been insufficient protections against the contagion of vice; for a people who had no wish higher than bread and the amphitheatre, to which all ranks flocked in thousands to witness with delight the effusion of human blood, could have but little if any virtue. But when vice has once taken root in a nation, it flourishes amidst the general corruption, and many ages must pass away before the descendants cease to inherit the vices of their forefathers, before calamities, the consequence of such an inheritance, cease to be visited on them, for with nations the visitation extends beyond the third and fourth generations. The southern, indeed the greater part of Italy, seems at present incapable of furnishing a sufficient quantity of honesty and patriotism to fill the different offices of a free government, for it

needs but little proof to show that true patriotism cannot exist without virtue. Of this the admirable effects of the British constitution transplanted into Sicily is a striking instance. I shall now mention some of the miseries of Rome, which have continued to exist from Juvenal's time to the present, and in spite of their *classicality*, still annoy the strangers. One of the greatest grievances common to ancient and modern Rome is the difficulty of finding any private house, much less any inn, where one can slumber undisturbed. Hence it came to pass that formerly many sick people died from want of sleep, and that it required great wealth to obtain a bed-room in the city free from the cause of the disturbance—noise. But although nocturnal noises are no longer annoying in Rome, yet another cause of vigilance has succeeded, still more general in its effects; for now not only the sick but the healthy are affected. Nor can wealth itself purchase exemption from its operations. This you will readily allow, Sir, when I tell you that what I allude to is a certain animal which, together with the "culices" and "ranæ palustres," may have robbed Horace of a night's rest on his journey to Brundusium. An English lady of noble birth was so much in dread of these creatures that she brought with her into Italy a portable iron bedstead, the feet of which she placed at night each in a tub of water. Vain effort! Her ladyship had scarcely passed the Alps before she bore visible marks of the inutility of this contrivance—quis talia fando temporet a lachrymis. A friend of mine was so tormented by their bites that when visiting the Capitol he flung, in a fit of rage, thirty of the ringleaders headlong down the Tarpeian rock!

Naples, December 3rd, 1819.

* * * * * * *

Last night I was awakened by the thunders of Mount Vesuvius, and am told that a smoking chasm has this morning been observed in the side of the mountain; the people seem to expect an eruption. If anything worthy of this "vultus præclara minantis" takes place, I shall let you know of it. I remember, Sir, that when I was in Germany, I formed a plan of describing that country to you as far as my observations and reading should enable me to do, but the wish to assist my observation by reading was the very cause of my abandoning that plan, for finding Madame de Stael's work so complete as nearly to have exhausted all the most inter-

esting subjects, and feeling that any attempt of mine to treat of the same subjects, would be like my endeavouring to retouch one of Raphael's pictures, I retired like Ariosto's Rodomonte vanquished by the enchanted spear of a female, and vowed not to use my arms, for a year, a month, and a day; but my muse (an acquisition which I have made by quaffing all sorts of poetical wines, from the Rhœtian to the Falernian) quoting the example of Lord Byron to prove that such vows are not now so scrupulously observed as they were by the knights of old, I break my vow with less remorse, and shall without adding to my already unreasonably long procœmium, proceed forthwith to my peroratio. Madame de Stael's Corinne, Eustace's Classical Tour, and Gondoli's Plays, are the books which I think best calculated to convey a good idea of Italy, and the manners and customs of its inhabitants, but I shall make no other use of my having read them, than the avoiding what has already been so well described by their authors, I must therefore omit many of the most interesting subjects and present you with an irregular heap of gleanings and fragments. The gallery containing antique sepulchral inscriptions, &c., in the Vatican, first claims attention, and in it the inscriptions found in the vault of the Scipios, which was opened not very long ago. In this vault was a large and rudely-worked sarcophagus, of a sort of light grey stone, together with a bust, which, as it is made of the same stone, was probably that of the person contained in the sarcophagus. The inscription is as follows, —Cornelivs. Lvcivs. Scipio. Barbatus. cnaivod. patre. prognatus. fortis. vir. sapiensque. quoivs forma. virtutei. parisvma fuit. Consol. Censor. Aidilis. quei fuit apud vos Taurasia. Cesavna. Samnio. cepit. subigit. omne. Louconam. opsidesque. abdoucit. When the first words are not in italics, they are meant to convey an idea of the shape of the letters in the inscription; the following seems to me not destitute of beauty, its style is very antiquated. L. Cornelius. Cn. F. Cn. n. Scipio. magna. sapientia. multasque. virtutes | aetate. quom. parva. posidet. hoc. saxsum | quoiei. vita. defecit. non. honos | honore. is. hic. situs. quei. nunquam. victvs. est. virtutei. annos. gnatus. xx.— the rest is not legible by me. I have placed the strokes to show where I think the divisions in the sense are. I translate the first clause as if sapientia were sapientiam, and the verb habuit *understood*, for other inscriptions prove that the old method of declining

the nouns was very different from that of the Augustan age; quei. quius. quoiei. quom. for qui. cujus. cui. quam. but the next inscription I think tends to confirm my opinion. L. Corneli. L.F. P.Scipio. quaist.Tr. mil. annos. gnatus. xxxiii. mortuos. Pater. Regem. Antioco. subegit, here is Antioco instead of Antiocum, unless it be the name of the king not yet latinized. In another in verse, the person is represented as passing no slight encomiums on himself, a practice frequent among Homer's heroes, and resulting from the simplicity or rather the honesty of ancient manners. The first part is in prose, Cn. Cornelius. Cn. F....Scipio. Hispanus. Pr. Aid. Cur. Q. Tr. mil. ii. xvir. sl. ivdir. x. vir. sacr. fac. then follows the verse, Virtutes generis mieis moribus accumulavi | Progeniem genui facta patris petici | majorum optenui laudem ut sibi me esse creatum | laetentur stirpem nobilitavit honor. | here the strokes indicate the end of each verse; the first verse conveys the idea that virtues constitute a sort of family property, to hand down which, increased from father to son, was certainly a noble ambition, an ambition, however, which in process of time died away among the posterity of the Scipios, as may be collected from the reproof of Juvenal, "Effigies quo tot bellatorum, si luditur alea pernox ante Numantinos? si dormire incipis ortu Luciferi, quo signa Duces et castra movebant?" the very irregular and crooked letters, put together without much attention to *relative* position prove the low state of the arts, at a period when Roman glory and power were extending themselves rapidly. Many of the inscriptions of the Plebeians are scarcely intelligible on account of the badness of the Latin, some, however, are *tolerably* correct, as for instance: Ac veluti formosa rosa cum tempore prodit | Arescit certo tempore deinde suo | Sic tu cæpisti primo formossa Anna videri | Tempore sed subito desinis esse mea | Hoc, stabilis tuus, eheu quo possum munere parvo | Prosequor, atque opto sit tibi terra levis | the last line is to be found, nearly word for word, in Ovid; the two following cannot boast much grammatical accuracy: D. M. Claudiæ Elaidi uxori, cum qua vixi ann. xiii—Claudiæ Sturehelene [?] uxori cum quem vivo ab infantia sine contumleias. Ann. XXXXIIII. Tit. Claudius Pannychus cum inscriberem aram hanc habui Ann. LXXXVI. The second is short. A. Considius Hermes vivo fecit sibi hoc sacrophagum: translated grammatically, he made the sarcophagus to bury himself alive in. On a neatly worked

sarcophagus of white marble, is the half-length bas-relief figure of a handsome boy. The inscription is D. M. Mulpio materno filio dulcissimo, parentes infelicissimi. Vixit Ann. xv. mens. v. Diebus xi.

In reading this short but affecting expression of sorrow a solemn feeling is excited; and on considering how many ages have elapsed since these unhappy parents bewailed the loss of their beloved son, and how short in comparison the time which added the ashes of the weepers to those of the wept for, we are almost tempted to add grief to the list of human vanities; but in this as in almost every instance we find the frailties and perfections of our nature so closely allied, that the former cannot be eradicated without injuring the very roots of the latter, nor could the finer affections flourish in a heart so petrified as to be incapable of grief. Christ wept, but Satan has always been imagined a being without a tear. Whence, it may be asked, originates the difference between the subjects chosen for the ornamental sculpture of the ancient Roman sarcophagi and those selected for the tombs of Christians? The former represent battles, triumphs, chariot-races, groups of Cupids, &c., but never anything to remind one that the interior is the abode of death; whereas on the latter, figures of the grim conqueror, with the dart and hour-glass, skulls, bones, &c., render the churchyard an appalling scene. To me it seems to arise from the difference between the heathen and Christian religion. A people who has no *settled* belief either in a future life or future rewards and punishments; who seem in general to have considered the Elysian fields and realms of Pluto merely as poetical existences, whose perspective extended no farther than this world, and seemed eternally closed by the tomb; such a people could have no reason for adding artificial terrors to death, and sought rather to render their sarcophagi, as far as possible, pleasing to the eye; and hence they present no other *memento mori* than the use to which they were applied. But to the Christian the tomb forming not only the close of one but the commencement of another, and infinite perspective, he is not so anxious to strip it of its gloom; but, on the contrary, in order the more strongly to contrast his immortal hopes with its mortal terrors, surrounds it with the most revolting images of death, over which the cross rising triumphant seems to exclaim, "Oh, grave, where is thy victory? Oh, death, where is thy sting?" No part of the Vatican interested me more than the immense

room in which the sarcophagi, urns, and inscriptions are arranged in departments, containing the epitaphs of the different ranks of society, from the meanest artisans to the Cæsars; but time and violence, not respecting one more than the other, have mutilated and deformed many of them, "nam et ipsis fata sepulchris." May that gallery of the Vatican long escape its *fates*, for I consider it, as it were, the sepulchre of the Roman nation. A gallery 800 feet long, together with a double one 200 feet long, contain the books of the Vatican library. As the bookcases are all closed no books are visible, but their number is certainly very great, and no doubt this library contains a vast quantity of *latent* learning,—latent, I call it, for no one ever reads in it.

The preceding extracts are from letters written to Dr. Perceval. The following are selected from among his letters to Archdeacon Russell:—

* * * * * * *

Although I have no doubt that you will be surprised, yet I am not without hopes that you will be pleased at receiving a letter from your quondam messmate and chess rival; if not, I beseech you to bear your misfortune with patience, as the only amusement I have in my leisure hours is to sit down, and endeavour, as far as possible, to enjoy the idea, that by means of what I write I may, in some measure, carry on a sort of conversation with my friends. Here in solitude, and as it were in another world, where I am without connections, without friends, and stand completely insulated, I feel no small comfort in endeavouring to prevent those whom I value from forgetting me. When one is absent for any length of time from home, one soon forgets the common *run* of saluting acquaintances, and at the same time learns to set a proper value on those who are worthy to be called friends.

* * * * * * *

I am every day the more convinced of the judgment which my brother Hercules showed in the most weighty of all choices,—that of his friends. How few die for whom three friends shed tears. No wonder, then, that in respect to his memory and his judgment I should covet the friendship of one of those who were as brothers to my brother. I can assure you that in writing to you I feel as if I was doing something by which, if it were possible, he must

be gratified; for as he loved me, I know he would rejoice to think that during his life he had been able to make a friend for me after his death.

Aix, January 16th, 1820.

I arrived here this morning from Marseilles, where I had spent the greater part of the night in witnessing the follies of the celebration of the last night of the Carnival, when I witnessed scenes in public which you would scarcely believe could have taken place; but I feel little inclined at present to give any account of them, as I have since paid a visit to what is to me the dearest spot in France, viz., that which contains the remains of our beloved Hercules. Melancholy as it was, I thank God that I have been able to perform it, as it was a scene which I can never remember without improvement. Immediately on my arrival here I was directed to the churchyard, which is on the outside wall of the town. After waiting some time, an old woman opened the door which leads into it, and I entered this abode of death with a strong impression of awe. It is about half an acre in extent, bounded on one side by the ancient wall of the city, and of a triangular shape. There are two doors, each with a cross on the wall above it. The greater part is dedicated to the interment of Catholics, but there are but few tombstones or graves in it. A wall three feet high divides the upper part, or Protestant burying-ground. In the sketch I have marked by crosses a small chapel, and by π the grave of Hercules. The two other crosses mark the graves of an Englishman and a young English girl. The churchyard is very clean, decent, and well enclosed, which was to me gratifying. At the head of Hercules' grave is a green marble stone with the following inscription:—"At Aix, on the 6th November, 1817, departed from this life, aged 22 years, Hercules Henry Graves, in the faith of Christ and the fear of the Lord." This was, I believe, dictated by himself, and shows the judgment which formed one of the most valuable of his many endowments, for he omits all the circumstances of his situation, country, &c., and only mentions about himself that he died in the faith of Christ and the fear of the Lord. "Aged 22 years," made a deep impression on me. And am I then older than he? Has time then ceased for him? God forbid! Never did I so strongly feel how gratifying it must be to mark the spot of a departed friend with some token of remembrance; and had time permitted,

I believe that I should have indulged myself with getting the names of his three friends inscribed upon the tombstone.

Graves was a Fellow of the King and Queen's College of Physicians, and was subsequently elected King's Professor of the Institutes of Medicine. He was chosen President of the College of Physicians in 1843 and 1844, and was elected a Fellow of the Royal Society in 1849. Besides these distinctions, he received the diploma of Honorary or of Corresponding Member from many of the Medical Societies of Europe.

It was in the autumn of 1852, he being then in his 57th year, that the symptoms of the malady, which was to prove fatal, first shewed themselves. In the following February he began to succumb to the disease. Although at times his sufferings were great, yet he had many intervals of freedom from pain. And he then showed all his old cheerfulness and energy. To the very last he continued to take pleasure in hearing of any advance of knowledge that tended to ameliorate the condition of man, or to throw light on his relations to a future state. In this latter point of view, the discoveries of Layard greatly interested him, as illustrative of the Sacred History; and thus he was permitted to fill up the intervals of his sufferings, even to the last; for his mental faculties never failed or flagged,—a mercy for which he often expressed a fervent gratitude; and so he was providentially enabled to review the past, and to form a calm and deliberate judgment on the religious convictions of his earlier years. And once the truthfulness of these were ascertained, he adhered to them with that earnestness which characterised all his decisions.

It was after the attainment of this state of patient

expectation that one who was dear to him expressed a prayerful wish for his recovery. "Do not ask for that," he replied, "it might prove a fatal trial."

His mind having become thus satisfied he made few remarks on these subjects, except in reply to the inquiries of others. Thus, when referred to the prophetic illustration of purifying and redeeming love, "A fountain shall be opened for sin and for uncleanness," "No," he said, "not a fountain, but an ocean."

On the day before his death he desired (a second time) to partake of the Holy Communion, with his family. When some explanations were commenced, he answered, "I know all that; I do not regard this as a charm, but I wish to die under the banner of Christ." Feeling himself sinking, he asked for prayer, and a petition was offered suitable to his condition; but he seemed to long for something more, and when questioned, replied, "I want some prayers that I know, some of the prayers of my youth, some of my father's prayers." The Litany was commenced, he immediately took up the well-known words, and when the speaker's voice faltered, he continued them alone, and distinctly, to the end of the strain, "Whom thou hast redeemed with thy most precious blood."

On the 20th day of March, 1853, and without renewed suffering, he ceased to breathe.

His tomb is in the cemetery of Mount Jerome. It bears the following inscription, dictated by himself:—

ROBERT JAMES GRAVES,
SON OF RICHARD GRAVES, PROFESSOR OF DIVINITY,
WHO,
AFTER A PROTRACTED AND PAINFUL DISEASE,
DIED IN THE LOVE OF GOD, AND
IN THE
FAITH OF JESUS CHRIST.