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# ADDRESS

DELIVERED AT THE COMMENCEMENT

OF

A COURSE OF LECTURES

ON

THE PRACTICE OF MEDICINE.

By RICHARD BRIGHT, M.D. F.R.S.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS IN LONDON,  
AND ONE OF THE PHYSICIANS TO  
GUY'S HOSPITAL.

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1832.

THE HISTORY OF

THE CITY OF BOSTON

FROM THE FIRST SETTLEMENT  
TO THE PRESENT TIME  
BY  
JOHN B. BOWEN  
OF THE BOSTON BAR  
AND  
OF THE BOSTON COUNCIL  
IN 1822  
BOSTON  
PUBLISHED BY  
J. B. BOWEN  
AT THE BOSTON BAR  
AND  
OF THE BOSTON COUNCIL  
IN 1822

THE HISTORY OF



TO  
THE STUDENTS OF MEDICINE  
AT  
GUY'S HOSPITAL.

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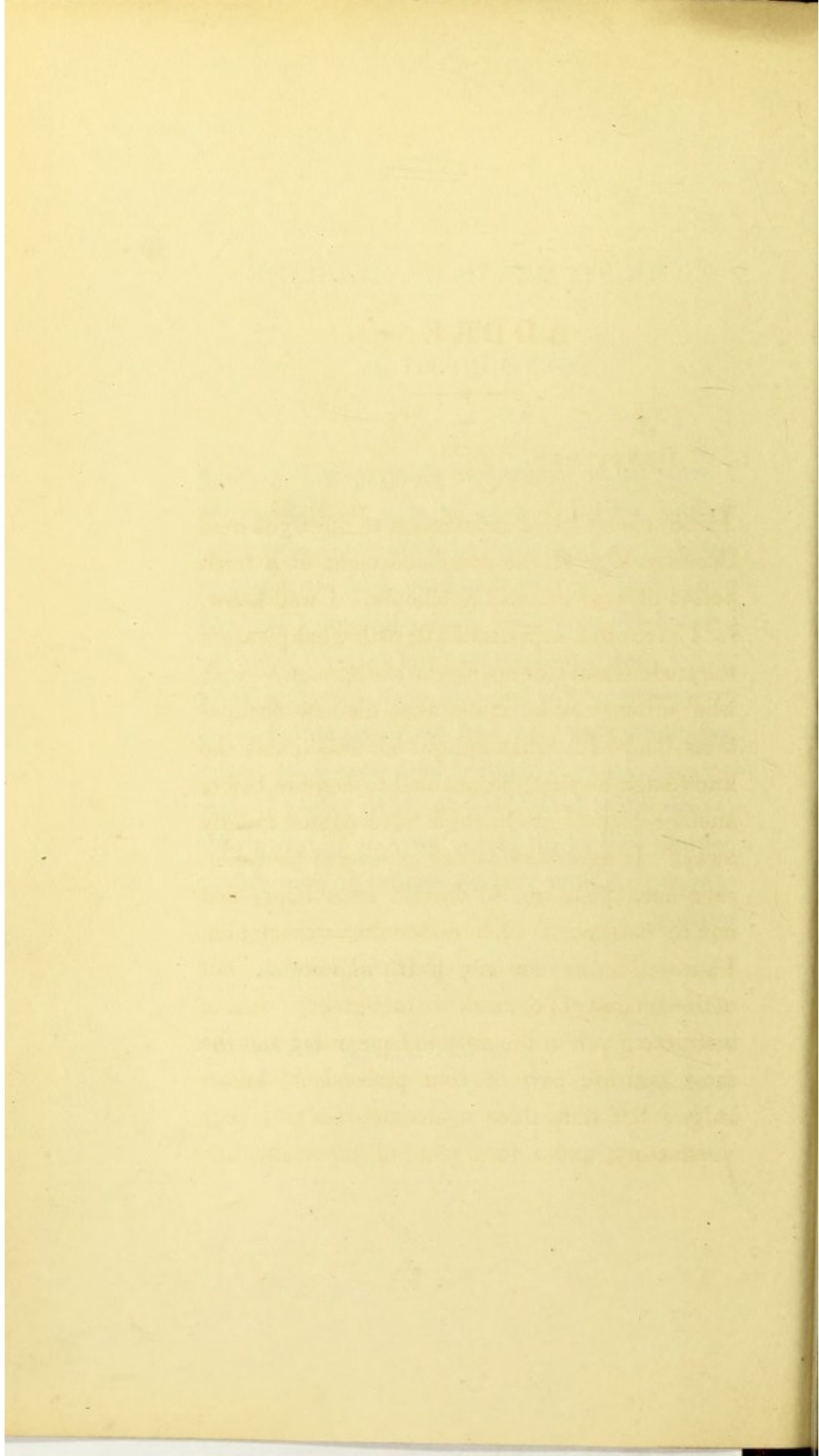
*I SHOULD be wanting in sincerity and in good feeling, were I to deny or even to disguise the satisfaction I experienced from your earnest request, that the accompanying Address might be printed for your use ; and, although I am well aware that it derived its chief interest from the excitement of the moment, and therefore fully anticipate that you will be disappointed in its perusal, I have complied with your wish, under the confident belief that the little which it does contain will at all events have no unfavourable influence on your present studies or your future welfare.*

*Your very faithful Friend,*

*RICHARD BRIGHT.*

*11, Saville Row,  
Oct. 22, 1832.*





## ADDRESS.

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GENTLEMEN,

IT affords me great satisfaction to meet you here this morning, at the commencement of a fresh period of your interesting labours. I well know, for I have often experienced it, with what pleasure the student hails the opening of the Session,—with what ardent zeal he undertakes his new occupations, and with what delight he anticipates the knowledge he shall be enabled to acquire before another year of study shall have passed rapidly away. It must now be our endeavour to encourage such pleasure, to cherish such hope, and not to disappoint such reasonable expectation. I am well aware not only of the importance, but of the difficulty of the task we undertake,—that of instructing you in the most indispensable and the most abstruse part of your professional knowledge; but difficulties overcome render labour satisfactory, and a deep sense of importance sti-



mulates to exertion. Let not, then, a sense of the importance of the subject be confined to your teachers alone, but let me invite you to participate in this feeling. To you are to be committed the health and happiness, the powers of body, and in a great degree the mental powers, of probably a very considerable number of your fellow-creatures; and of that circle of your fellow-creatures in which, by natural connexion, by the ties of friendship, and by the bonds of neighbourhood, you are in future life to be most deeply interested. To you affectionate children will look for the welfare of their parents;—to you the anxious parent will turn for the rescue of his child;—and on you the fond husband will depend for all that is dear to him in the hour of danger;—to you perhaps may be confided the lives of numerous men led to the field of battle, or marched through unwholesome countries;—to you the health and efficiency of crews destined to long and perilous navigation may be intrusted;—on you the public eye is to be bent in the days of plague and pestilence—for who shall now say that from such visitations even our happy climate may be free? And under all these circumstances you must be ready to give an account of what has been done, not only to



those who are eagerly collected around you, but to a much more troublesome inquirer within, who will accompany you to the retirement of your closet, and with its inquisitorial voice not only ask you whether you have done your best upon the present occasion, but whether from the time you commenced your professional studies, you used your utmost exertions to acquire that knowledge, which would fit you for the discharge of your duties; for it is this consciousness alone which can enable you to lie down with comfort when harassed by the occasional unsuccessful issue even of your best endeavours.

But to detain you long in explaining how much your future comfort and respectability depend on your acquaintance with the profession which you have chosen, would be to waste your time in the expression of common truisms. Yet it may not be improper to call your minds to another truism as obvious, though not so generally acknowledged: I mean the paramount importance of that particular part of your profession in which this Course of Lectures professes to instruct you—the *Practice of Medicine*; for, strange as it may appear, it is too often forgotten that the Practice of Medicine is the most important part of the medical



practitioner's education ; and while occupied in anatomical pursuits, and interested in the visible progress of surgical disease and the prompt effect of surgical operation, many a young man has discovered too late that the time he could devote to the study of his profession has insensibly glided away, and he has made scarcely one effort to obtain a connected knowledge of those diseases which,—let him style himself General Practitioner, Surgeon, or Physician,—will be the chief objects of his practice, the daily betrayers of his ignorance, or the touchstones of his skill.

Anatomy and Physiology are the basis on which alone sound pathology and sound practice can be built ; but though you had made yourselves perfect in these, you are still but at the threshold of the temple. You have not taken the first step into that sanctuary in which you are hereafter to officiate for good or for evil.

Many of you have, I doubt not, had the opportunity of visiting and admiring the wonders of an extensive manufactory. You have perhaps witnessed the busy activity of a cotton work ;—you have seen with astonishment whole rooms crowded with carding machines, with spinning machines, and with power looms, urged on by the



force of the steam-engine, carding and spinning and weaving with the utmost exactness, scarcely needing even the attendance of a child. You have found it hardly possible to conceive the ingenuity by which all this has been contrived; and when by the most careful and assiduous attention you have made yourselves masters of every part howsoever minute, still you have perceived how totally unable you were to superintend even a portion of this machinery, and you have found how little able the most skilful in one department was to correct the failings or remedy the accidents which occurred in some other department, upon which however the perfection of the work as essentially depended. But what is all this machinery, when compared with the machinery of the human body?—what this moving power when compared to the pulsating heart?—what the coarse contrivance of the furnace and its fuel, when compared to the subtle process by which animal heat is generated? What are all the marks of intellect, impressed on every part of this great work of man's device, to that Divine intelligence, and those powers of thought, of feeling and of volition, which are so mysteriously mingled with certain parts of the animal machine, that nothing



short of inspiration will ever enable us to understand the mode by which they are united? How, then, can we expect, without study the most laborious, so to instruct ourselves in the working of this machine as to comprehend all its powers? And if, grasping in ignorance, we presumptuously undertake to regulate the failings of every department, instead of making ourselves minutely acquainted with one, though generally informed as to the bearings of all, may we not too soon find that the beautiful machinery is falling to pieces in our unskilful hands?

In the present Course of Lectures, although we are to presuppose in you an acquaintance with this living machinery, a familiarity with the minutiae of anatomy, and a knowledge of the physiology of the human body; yet we may not unfrequently have occasion to recall, in hasty survey, the more important parts of the animal œconomy; and I do not know that I can better employ a few moments at the commencement of a Course of Lectures on the Practice of Medicine, than by bringing to your notice some of the great features of that wonderful MACHINE, which it will be your duty to regulate and keep in order, or to repair, when, from natural or artificial causes, it



may be deranged ; and this short survey will enable you to form some idea of the multiplicity of sources from which derangement may arise ; and hence lead you to appreciate, in some degree, the difficulties which must be encountered in the practice of your profession.

Scarcely would it be necessary to do more than point out to you the exquisite beauty of the parts which are displayed in the preparations and models which now surround me, to convince you of the elaborate structure of the machinery which is so skilfully concealed within each pliant limb, each busy cavity, each unconscious organ ;—so minute, so intricate, and yet so capable of bearing the blows, the pressure, or the friction, which would derange much less delicate machinery if wrought by human labour ;—nor need I perhaps do more than point to the crowded shelves of our pathological museum, to show you the ravages and derangements which disease can effect on parts which defy so much external violence. Still, however, I will trespass on your attention while I make a somewhat more particular, though hasty, reference to the various parts of the animal machine. First, then, turn your attention to the SKELETON, the firm mechanism of bone by which the body is supported. The



whole beautifully adapted to the object for which it is intended,—not too heavy, not too slight, a concrete deposit, the produce of the vital power and of vascular action,—not a mere crystallization, but an organized structure, the various parts of which are fitted, by a series of most curious contrivances, to act as levers, as arches, or as pulleys, according as power, as resistance, or as motion may be requisite.

From an early period in the formation of the foetus the rudiments of this framework of bone are already visible ; first only in a fluid state defined by a thin membrane, gradually assuming the appearance of cartilage, and then, even before the seventh or eighth week of foetal existence, showing marks of earthy deposit ; this earthy deposit becoming gradually more abundant, the cartilage in the mean time partly absorbed and moulded into a new form ;—all these parts once deposited, again continually absorbed and reproduced, so that the bone increases with the size of the body till the perfect growth is effected. These bones, surrounded by a vascular membrane, the periosteum, and connected with each other by ARTICULATIONS beautifully varied according to the motions which it is necessary for each part



to perform,—and each articulation furnished with a covering of cartilage to prevent the effects of concussion, and lined by a membrane whose duty it is to secrete a lubricating fluid to protect the joint from friction and from injury.

Useless and powerless all this mechanism without the MUSCULAR STRUCTURE, which with striking symmetry clothes the framework of the skeleton;—masses of contractile fibres proportioned to the force and extent of motion which is requisite in each particular part;—these fibres sometimes inserted in their own form into the bone or its investing membrane; sometimes uniting, and by tendinous prolongations communicating their actions to distant parts, where the mass of the muscle itself would be inconvenient or altogether destructive of the object to be attained. Nor is the power of these muscular masses confined to the production of locomotion or the varied movements of the limbs, but operates on other and still more important parts:—deprived of muscular agency the speaking countenance becomes a blank, the inquiring eye is fixed, and the articulating tongue is silenced; let the muscles of the intestines cease to act, the food no longer passes on in its accustomed course; but let the



muscular fibres of the chest, or the strong muscle of the heart be paralysed, respiration is interrupted, circulation ceases, and we die.

By the consideration of these, which may be called the grosser portions of the human structure, we have proceeded but a very short way in the contemplation of the whole. When the muscular heart contracts, it sends forth into the system a stream of the curious compound fluid **BLOOD**: and here we come to touch upon a discovery of comparatively modern days,—the **CIRCULATION** of that fluid. Propelled by the heart, the blood passes at the same moment in two different directions; one portion going forth to supply the wants of every part of the body, the other portion passing into the lungs, there to undergo a change, which has been rendered necessary from the alteration and deterioration which it has suffered while it has been distributing on all sides the means of subsistence and of growth, which it has borne along in its stream; and each of these separate portions of blood brought back to the heart,—the **ONE** weakened (if I may be allowed the expression), and now to pass into the lungs to regain its vigour;—the **OTHER** strengthened, and about to flow through the system to carry energy,



in its turn, to the most distant recesses of the body.

This object, THE DISTRIBUTION OF THE BLOOD, is effected through the medium of the ARTERIES,—a system of organized tubes formed of a peculiar elastic substance, surrounded throughout their course by circular contractile fibres, and these bound together and strengthened by a cellular covering ;—these arteries distributed to every part with admirable skill,—for protection deeply buried beneath the muscles, or even carried along bony canals,—admitting freely of all the most extensive motions to which the surrounding parts can be subjected, and at length dividing into branches of the most incredible minuteness, distributing the fluid to every part, the most hidden and the most exposed. But when these arteries arrive at the distant points of their destination, then begin those processes of *vital and chemical action* to which your attention, as Physicians, is to be constantly directed. There it is that the SECRETIONS take place, each in its proper organ. There it is that from that blood, whose natural tint, even in vessels so small as to be invisible to the naked eye, you may best appreciate by the colour of the cheek when suffused by a blush,—



in those secreting organs it is, I say, that within a few inches, or a few lines, of that very cheek on which you read its natural colour, you shall have separated from that red fluid, the salt and colourless tear, the tasteless saliva, and the lubricating mucus;—within the external cavity of the ear, a peculiar substance shall be poured forth, and the skin shall produce its abundant transpiration;—while at the same instant, in other parts, the pancreas, the kidney, and the liver are all employed in elaborating their own secretions;—the widely extended mucous membranes, and that no less important class of membranes which secrete serum, are busily and constantly performing their functions;—and not only are these secretions, as they are usually termed, effected, but, at the same time, every part of the body is undergoing a process of renewal;—in the bones, bone is deposited; in the muscles, muscle; in the membranes, membrane: the very vessels themselves are deriving their repair and their renewal from the fluid which they are destined to convey.

That part of the blood not expended in the various processes to which it becomes subservient, is returned to the heart by the VEINS,—a



set of vessels scarcely possessing contractile power within themselves, but in which the blood proceeds regularly forwards, and is prevented from returning by the frequent occurrence of a valvular structure. Nor is the venous blood itself returned to the heart without in part being again subjected to the power of secretion: for, a large portion of it passing through that important organ, the liver, there gives out the bile; thus supplying the nutritive system of the body with a most important contribution; while the blood itself is freed from principles which would become highly pernicious, were they allowed to continue in the general mass of circulating fluid. Returned by the vena cava into the right auricle of the heart, the venous blood passes into the right ventricle, which is immediately stimulated to contraction; and while the force of the blood closes the tricuspid valve, preventing it from returning into the auricle, it is projected forwards into the pulmonary artery (where another valvular apparatus opposes its regurgitation), is distributed through innumerable fine vessels ramifying on the cells of the lungs, where it is brought in close approximation with the atmospheric air, and undergoes a change in its chemical properties; it



then passes back through the pulmonary veins, and through the left auricle to the left ventricle, which, contracting on its new contents, forces the mitral valve to close behind, while the blood is driven forwards into the aorta, again to SECRETE, to RENEW, and to REPAIR.

Supposing you, for a moment, ignorant of that fabric to which I am now but recalling the attention of most of you, I should expect you naturally to ask, how all the blood expended in secretion, in excretion, and in repair, is to have its continued loss supplied? And to answer this inquiry, I shall state to you in a few words the process of NUTRITION. In that process we trace the aliment from the mouth, where it is masticated by the teeth, and moved on by the tongue, and mingled with the peculiar secretion of the salivary glands, through the œsophagus, a cylindrical muscular tube, till it enters the stomach at its cardiac extremity. Received into the stomach, the aliment undergoes the process of DIGESTION. It is agitated by the action of the muscular fibres, mixed with the gastric juice, subjected to a considerable degree of heat, and when formed into a pulp, which we term chyme, is suffered to pass the pylorus, where a valvular structure opposes



the passage of undigested food. In what degree, or by what precise agency, if at all, the SPLEEN is instrumental in this process of digestion, is one of those questions which still remains undecided, and open to investigation\*. Almost immediately on quitting the stomach, the chyme is mixed with the bile and the pancreatic juice, two secretions, the one obtained by the action of the liver from the venous blood, and stored up, in part, in the gall-bladder, by means of a curious and obvious mechanism; the other secreted from the minute arterial branches of a gland resembling the salivary glands. The effect produced by the mixture of these two fluids with the chyme is of the utmost importance; it separates the whole into two distinct portions, the one a mild milky fluid, the true nourishment of the body called chyle; the other an excrementitious matter unfitted for the purposes of nutrition. This change is effected chiefly in the duodenum, and is in all probability assisted by a secretion from that intestine itself, somewhat analogous to the gastric fluid. After being some time detained in the duodenum, the

\* Dr. Hodgkin on the Uses of the Spleen, in the Appendix to his translation of Dr. Edwards on the Influence of Physical Agents on Life: 1832.



whole of the food gradually passes into the small intestines, which, like the duodenum, are composed of muscular fibres, and of an internal membrane formed into numerous valves, and believed to be furnished in every part with the open mouths of the lacteals. The excrementitious matter having been propelled through the small, enters the large intestines, where, submitted to fresh and striking changes, and mixed still more with mucus secreted from glandular structures, it at length passes from the body; but the important part, the chyle, is taken up by the orifices of the lacteals, is conveyed through two or three successive ranges of absorbent glands, where in all probability it undergoes further most material changes, and passing by fresh lacteal vessels from the glands, is mingled in the thoracic duct with the fluid brought by the other absorbents of the body. Now these other absorbents are ever busily occupied in taking away parts that are to be renewed, and fluids that have been effused into any of the cavities of the body. These they bring to be acted upon by the absorbent glands in the axillæ, in the groins, or elsewhere, and then convey them to be mingled with the mass of chyle, and carried by the great thoracic duct, or by the subsidiary



ducts, into the veins, just before they pour their blood into the heart. Mingled with the blood, and propelled through the lungs, the phænomena of ASSIMILATION are completed.

We must not, however, even here suppose that our hasty survey of the animal œconomy is brought to an end: for neither could the bony structure increase, nor the muscular fibre contract; the heart could not propel its blood, nor the minute arteries perform their secretions; the stomach could not digest, nor the absorbents act; nor could the lungs complete the process of assimilation;—without the aid of the NERVOUS SYSTEM. This system consists of four chief parts,—the brain, the spinal cord, the nerves, and the ganglia, each of which has of late very much and deservedly occupied the attention of the physiologist and the pathologist. I shall not enter into a particular description of the distribution of this system. It appears probable that the brain has, —associated with an anatomical structure, of which you are none of you ignorant,—the power of perception and of volition lodged in different parts, as the corresponding faculties of communicating motion and sensation have been demonstrated



within our own day\* to be under the influence of different parts of the nerves and spinal cord,—the motion of any part supplied by the spinal column depending on the integrity of its anterior portion,—the sensation of the part depending on the integrity of the posterior portion. Another set of nerves has, likewise, recently been pointed out as peculiarly devoted to respiration, and some connected phænomena;—while the ganglionic system is distributed to the internal organs of the body, and, supplying nervous energy for all the involuntary processes, acts at once separately and in unison with the spinal system.

The most minute investigation can scarcely convey any idea of the universal distribution of this complicated apparatus. It is by its action in health and in disease that its extent is best understood; and the physician can never too accurately study its distributions and functions, as every step of such research throws new light on pathology, and serves to explain those intricate and extensive sympathetic affections, the knowledge of which frequently leads to correct diagnosis in disease.

\* Nervous System of the Human Body, by Sir Charles Bell.



Connected immediately with the nervous system, and by their dependence upon it, most forcibly illustrating the extraordinary properties of an influence, which we can appreciate only by its effects, are those curious pieces of mechanism to which we give the name of the ORGANS OF THE SENSES,—those inlets to the mind through which intercourse is maintained between man and the external world which surrounds him. The EYE, whose combined lenses, various in their powers of refraction, direct the rays of light to their proper focus, and whose skilful mechanism, with a rapidity of accommodation which the optician in vain attempts to imitate, shuts out the needless rays, lengthens and contracts its focal distance, and so changes and modifies the position of its axis, that with difficulty can the hand of cunning learn to perform a motion which the eye is incapable of following; thus enabling us at one time to appreciate, and at another unconsciously to derive an inexhaustible fund of pleasure from all the varieties of light, of colour, and of form, with which art and nature are replete:—The EAR, with a structure less capable of being analysed, yet certainly neither less delicate nor less true in its



power of seizing the minute modifications of those impressions which it is intended to receive and to communicate ; through the instrumentality of which organ discord excites a pang, and harmony a pleasure, and every note is capable of analysis, combination, and comparison, while each articulate sound conveys its own conventional impression to the mind :—The finely wove and wide extended membrane through which the SENSE OF SMELL is communicated :—The well moistened papillæ which receive the objects of TASTE :—Those organs, a masterpiece of mechanism, whether for movement or for power, in which the SENSE OF TOUCH is chiefly lodged, whose pliable form enables them to follow every sinuosity, whose delicate structure enables them to ascertain every irregularity. These are the organs of sense, whose perfection ministers to our joy, whose defect clouds our existence, and for whose safety every provision has been made, both by the security of the situations in which they are placed, and by their DOUBLE STRUCTURE so skilfully arranged, that, while perfect, the parts act in unison, strengthening each other's power ; but when one part is injured, its duplicate immediately supplies its more urgent duties, and, by



practice, soon becomes capable of fulfilling almost the whole functions of the unimpaired organ.

Thus wonderfully formed, this complicated body is doomed to die : but, first, it has to leave its offspring behind,—creatures like itself,—fashioned in a corresponding mould,—each fraught with the same perfections, stamped with the same failings and the same diseases which have marked the parent stock. This important, this indispensable function of the living system, the perpetuation of the species, dependent upon the perfection of another complicated mechanism, superadded as it were to all the rest, but so superadded as to influence every part, to pervade all by its sympathies, and affect by its derangements almost every other function of the body, and with this, the GENERATIVE SYSTEM, are again connected functions by which the mother is provided with the means of nourishing her infant offspring, when that offspring, having been separated from its curious, and even now but newly understood\* connexion with the mother, no longer continues to derive its nourishment through the assistance of the THYMUS GLAND,—a curious apparatus, whose structure

\* Dr. Robert Lee's papers on this subject, *Phil. Trans.*, and *Med. Chir. Trans.* 1832.



and probable functions have within the last few months only, been satisfactorily explained\* by that ornament of our profession, who, like you, but with a portion only of the advantages which you possess, acquired within the walls of these hospitals both his elementary knowledge, and a great share of that practical acquaintance with disease, which has so distinguished him throughout his ardent and successful career.

While the body is in health, each of these parts, so various in its structure, performs its functions aright; and, whenever any one of them is faulty, it is then that you will be called upon to exercise your profession. It is most obvious that parts so complicated, each depending on the other in such a continued circle, and each so delicate in its structure, must be constantly liable to derangement under the most favourable circumstances; but this complicated body is exposed under every imaginable variety of circumstance; and the very boasted superiority of the human mind, more than any thing, serves to promote the derangements of the human body. Hurried on by passion to every excess, excited by ambition

\* The Anatomy of the Thymus Gland, by Sir Astley Cooper, Bart.: 1832.



to every attempt, the mind soon ceases to consult the power of the body, until the rapid strides of disease warn us of our error, and effectually prevent our progress. There is no climate, however intemperate, within the arctic circle, or beneath the torrid zone, but the ambition of man will induce him to run every risk, and expose himself to all its dangers, in extending commerce, or investigating nature. There is no art or manufacture, however deleterious, but either the ambition or the necessities of mankind will induce some to undertake its most fatal processes. There is no exertion, however brutal or ferocious, to which the love of distinction will not lead men on; and thus are often sown the seeds of disease in the very hour of triumph. The luxuries in which almost every one indulges, and the artificial mode of life to which the progress of civilization has given rise, are of themselves the fruitful sources of most extensive disease. The mental exertions, and the anxieties to which men are exposed, become the frequent causes of diseases the most formidable. The neglect or the mistaken indulgence of childhood,—the artificial restraints of youth,—the exertions of manhood,—the privations of poverty,—the superabundance caused by



wealth,—all in turn give their assistance in forwarding that decay to which the organs of the body are by nature subject.

Looking, then, to this complicated machine, and to the complicated causes by which its actions may be deranged, we can easily anticipate how varied the forms which diseases will assume, and how varied the information and acquirement which it is incumbent on him who undertakes the duties of a physician to store up within his mind, that he may not be found wanting amidst the ever varying emergencies of his profession. There is no classical, there is no scientific acquirement, there is no study calculated to enlarge the mind, which is not becoming to the physician : whatever can render him more conversant with man, both the corporeal and the intellectual part of man, is his more peculiar province ; and whatever can open to him any other page in the history of nature, will throw fresh light on his professional pursuits.

After saying so much, I need scarcely mention a classical and mathematical education as the basis, the foundation, on which to build :—I need still less enumerate anatomy, physiology, chemistry, therapeutics, as the corner stones of your



edifice :—and I need scarcely insist on the importance of cultivating a chastened power of generalizing your ideas, and a cautious habit of reasoning upon facts.

There are certain moral qualities likewise, which, becoming as they are to all men, should be stamped with peculiar force on the heart, and show their fair image in the habitual character of every physician. If there be an office in which man is engaged where the kinder sympathies of his nature are liable to be powerfully or even painfully called into exercise in the daily routine of his occupation, it is the office of the physician; and difficult indeed would it be for any man, by the exertion of his own voluntary self-government, to maintain that equilibrium of mind which would enable him to overcome the gentler feelings of his heart, so as to do justice at once to his patients and to himself. But by the wisely devised regulations which sway the human mind, a compensation is provided against this excess of sensibility, by the power which frequent repetition possesses of habituating us to any particular impression, and shielding us against its injurious tendency; and as these impressions are in our case so constantly repeated, the real danger



in which we stand, is, lest this compensating influence should become too strong, and our feelings too obtusely blunted against the sufferings, both mental and corporeal, to which we are necessarily rendered familiar. It is essential, therefore, that we should all be on our guard in this particular, to check ourselves occasionally in our forgetfulness, to place ourselves in imagination in the situation of our patient or of his friend, to weigh the expressions we employ, and, if need be, to let reason and good sense make up for the deficiency of that feeling, which it is well both for our patient and for ourselves, has been chastened by the operation of a wise law, to which our nature is subservient.

Many are the moral questions which will arise to you in your professional life, and for the solution of which you must turn to a strict code of ethics, not printed on the leaves of a book, but engraved upon the tablet of the mind. These questions will refer, not only to your patients, but to you, amongst yourselves, as fellow practitioners: and when we consider how numerous, and consequently how variously constructed must be your minds, how indefinitely varied the relative situations into which circumstances may place you



with each other,—and when we add all this to the still greater extent of variety in understanding, in feeling and in education, which must exist in all the different classes of society from which your patients are to be derived,—and all the variety which must occur in the incidents, which, though not strictly medical, are mingled with the sick-bed of every man, from his cradle to the decrepitude of his old age;—it will be plainly seen that it would be no easy matter to enumerate the questions, or write out the code by which they could be answered. But it is satisfactory to know that a cultivated understanding, an upright mind, and a full determination to act on the golden rule which our religion has provided for us, as regulating our conduct towards our neighbour, will either anticipate and prevent the emergency, or point out our line of duty when it arises.

In the STUDY OF DISEASE there are two methods in which we may proceed,—we may *either* begin by studying the morbid appearances, that is the structural changes which are connected with certain trains of symptoms; *or* we may make ourselves masters of the symptoms, and afterwards trace the connexions which these symptoms have with certain organic changes. Now as far



as we can recognise during life, it is a collection of symptoms which makes up a disease. Those symptoms are given ; nothing else is presented to us ; from those symptoms we know, and name, the disease. There are cases where we could not even by minute dissection know anything more ; and yet we may cure such diseases, or, without leaving any appreciable organic trace, they may prove fatal. It is true that in many cases we know by observation that certain symptoms depend in an intimate manner on certain morbid changes ; and when this is known, it gives great satisfaction to the mind, but very often throws little light on the treatment.

When the experienced physician is called to the bed-side of his patient, the operation of his mind is a combination of both the methods of viewing disease, of which I have spoken. He sees the symptoms, he perceives certain morbid actions, and he infers other morbid actions ; and under circumstances, he concludes that certain organic changes more or less confirmed are connected with them ; and those morbid changes he may by various means within his power ascertain almost with certainty ; which being done, his view of the case becomes still more decided and com-



plete ; but his first inquiries must always be to ascertain the symptoms.

In the present Course of Lectures, then, it is our intention to speak of diseases as of certain collections of symptoms in the first instance ; and then to make you perceive, as far as we are able, the sources of those symptoms, and to illustrate them by ample reference to the facts of morbid anatomy. For this purpose I am happy to say that the provisions of this Establishment are most richly abundant. We have a MUSEUM of which we may justly be proud : the preparations which it contains illustrative of medical disease are excellent, and have been collected with great care for many years by the physicians who have successively lectured in this theatre, and they have within the last few years been greatly extended, and most carefully arranged by Dr. Hodgkin, who during the winter will, I trust, deliver a Course of Lectures specifically upon the subject. The assistance, likewise, which we may derive from MODELS and DRAWINGS is by no means small ; for we have the good fortune to have obtained the skilful aid of two most admirable artists in these departments.

Yet, after all, the abstract knowledge of dis-



ease is only a small part of the business you have before you. You must learn it practically ; and after you have learnt to distinguish disease, and to appreciate the deranged function, or the disorganized structure on which it depends, or with which it is connected, you must learn its cure : and as it is our wish to render this Course as practically useful as possible, we shall never lose sight of the fact, that we are lecturing within the walls of an HOSPITAL. As the naturalist who lectures in the midst of his museum,—as the botanist who accompanies his pupils into the fields,—so the physician lecturing in an hospital has the advantage of drawing his illustrations from the actually existing objects of his discourse,—and whenever it is in our power, we shall refer you to the cases which you have had the opportunity of seeing in this extensive Institution.

Never, perhaps, will you again be placed under circumstances in which so large a field of observation can be offered you. The hospital in which we now are, contains in its wards a constant succession of above five hundred patients ; thus amounting in the year to between three and four thousand,—not admitted at the recommendation of Governors, but selected by the physicians

and surgeons as the worst and most acute, or the most interesting and instructive, from a concourse of patients who apply here on the regular days of admission, and from the out-patients, for whom, to the number of fifty-three thousand annually, the students have for the last two years had the opportunity of seeing the physicians and surgeons prescribe, and the extent of which class of applicants seems yearly to be increasing.

But do not suppose that by beholding, or even living amongst this multitude of diseases, you are thus to be rendered skilful practitioners: you must again select, for your own more minute observation, from those which have been already selected. Undoubtedly the more a man sees disease, provided he looks upon it with the eye of intelligence, the better; but think not that it is enough simply to let the eye or the hand wander over the patient; and do not flatter yourselves that you possess by intuition the power of detecting and discriminating disease. We have all of us senses, it is true,—we hear, we see, we smell, we feel; but till we are taught, we know not what we hear, or what we see, or what we feel; without much experience our senses remain most imperfect, compared with the exquisite perfection to



which they are brought by practice : and this is one of the chief advantages arising out of so great a multiplication of cases.

It is the duty of the student to CULTIVATE HIS SENSES, as it is of the physician to have all his external senses on the alert from the moment he enters the sick chamber till the moment he leaves it : on the accuracy of his observation all his deductions must depend ;—if the premises which he can alone collect at the bedside be imperfect or erroneous, however correct and sagacious his after-reasoning may be, it will not be applicable to the case he has to treat. You must, then, in your pupillage, cultivate accuracy in appreciating the information capable of being acquired by these means. By the EYE you will learn much ; many diseases have the most distinct physiognomy. The sunk and shrivelled features derived from the long-continued disease of the abdominal viscera ; —the white and bloated countenance often attendant on changes in the functions or structure of the kidney ;—the sallow and puffy cheeks, of the liver diseased from habitual intemperance ;—the squalid and mottled complexion of the cachexia dependent upon the united effects of mercury and syphilis ;—the pallid face of hæmorrhage ;



—the waxen hue of amenorrhœa;—the dingy whiteness of malignant disease;—the vacant lassitude of fever;—the purple cheek of pneumonia;—the bright flush of phthisis;—the contracted features and corrugated brow of tetanus,—all these shades of countenance, and very many more which I might enumerate, with all their varieties of combination, are distinctly recognised by the experienced eye.

The posture, again, which the patient assumes, is the subject of instantaneous ocular observation;—in some cases, as in *affections of the heart*, strongly marking the DISEASE; in others, as in *fever*, affording indications of the PROGRESS which the disease is making, and forming one at least of the data on which we found our prognosis.

The appearance of the various excretions requires likewise an experienced exercise of the eye: from the urine, from the expectoration, from the alvine evacuations, most important inferences are to be drawn, and therefore the student must accustom his eye to the various characters which they assume.

To what a degree the sense of TOUCH may be perfected, we have frequent examples in those who, from the loss of sight, have been obliged to



obtain what compensation they can by the assistance of the other senses. Such persons can perform the finest and most curious manipulations, or with facility and rapidity read with their fingers books in which the letters have been slightly embossed for their use, or readily follow the import of words traced by the finger on their hands. To a certain degree we may all acquire such accuracy of touch, and it is our duty to do it. To ascertain the existence of anasarca, or emphysema; to discover fluids in cavities; to distinguish their probable consistence; to detect tumours; to trace their source, and to point out their nature; to appreciate the indications of the pulse; to ascertain the condition of the skin,—these are some of the more frequent objects for which a perfected sense of touch becomes indispensable.

The EAR, likewise, has always to a certain degree been called in to the assistance of the physician; he has from the hollow, the hoarse, or the feeble voice derived information; from the bold or hesitating articulation deduced conclusions; from the sonorous or the silent breath derived his inferences; but of late the sense of HEARING has been called much more constantly

and minutely into exercise, and through the medium of percussion and the employment of the stethoscope, we are enabled to obtain a degree of accuracy in our distinctions of disease, which is often most important to our patient, and always productive of great satisfaction to ourselves.

The unpleasant perception of unwholesome SMELLS in the sick room, warns the attentive physician that the cardinal virtue, *cleanliness*,—or the indispensable assistant in the cure of disease, *ventilation*, is neglected. The putrid exhalation which hangs about the bed of the patient labouring under gangrenous abscess of the lungs; the heavy odour which arises from variola or eczema; the fœtor which marks mercurial action even before it shows itself in the gums; the still more oppressive fœtors which attend on carious bones, ulcerated cartilages or certain uterine discharges; and the odours emanating from the various excreted matters under different circumstances,—are all so many guides, whose faithful indications the physician, anxious to perform his whole duty, must thankfully learn to receive and to understand.

I need not enter more minutely at present into this subject. I have said enough, perhaps, to



impress upon you the importance of cultivating the powers of your various senses, with reference to that peculiar class of objects which your profession embraces ; and you must at once perceive that the only opportunity which can be afforded you for such exercise and instruction is in the **WARDS** of an **HOSPITAL**.

And, here you must allow me to say a very few words on the **CONDUCT** which should be observed within the **WARDS**. This noble Institution, —a monument of the beneficence of an individual commenced during his lifetime, established above a century, and now still further endowed by the princely bequest of one of the Governors,—has been elevated to the dignity of a medical school by the unremitting care of a succession of able Teachers, under the kindest and most disinterested assistance of the present Treasurer.

To the Treasurer, as the organ and centre of the Governors, we as Physicians and Surgeons, and you as Pupils, owe the greatest deference and respect. He is most willing to give us every facility in the pursuit of science which is consistent with the first great object of the Institution, —the welfare of its inmates : as long as this is provided for, the pupils of the hospital are at liberty



to spend what time they please in the observation of disease in the wards. There is scarcely a disease, whether acute or chronic, ever occurring in this climate, which, during the season or two seasons you may pass here, will not be presented many times to your observation. In one case the disease will be simple, and in another complicated,—for this is by far the more common form in which disease is seen. You will have an opportunity of exercising your discernment in distinguishing one disease from another,—in unravelling those symptoms which are intricate,—in judging of the varieties produced by individual constitution. You will see the effects of remedies;—you will watch their result;—from our success you will gain knowledge, from our failure you will take warning. I would recommend those of you who are sufficiently advanced to seek your knowledge chiefly in the practice of the wards, to make notes of cases, selecting a few for this purpose, not overloading yourselves with numbers. Make your own notes daily; this will keep you steady to your labour; you will have enough inducement to relax; do your best so to begin that your attention may not easily be drawn aside. *Extraordinary cases* will dis-



tract your attention from those of more common occurrence ; but common cases should be the first objects of your study ; they are to be the chief employment of your future practice, while extraordinary cases are the subjects of your wonder alone. Students in the wards are frequently not sufficiently regular in their observations. It is quite impossible for any man to gain information respecting *acute* disease, unless he watch its progress. Day after day it must be seen ; the lapse of eight-and-forty hours will so change the face of disease, that where, but the day before yesterday, nothing but the *knee* or the *hand* was swollen, today the *heart* shall be beating its laborious stroke in a thick crust of coagulable lymph ; what was then a highly inflammatory fever, shall today be sunk into the hopeless prostration of the lowest typhus ; the restless activity of the inflamed brain shall be changed into the deathlike coma ; or the conquerable inflammation of the intestines shall be followed by fatal effusion or disorganization ; and if such changes, requiring at each hour the physician's care, shall be effected in eight-and-forty hours, who shall recognise the acute disease which he visits scarcely once a-week ? Acute disease must be seen at least once a-day

by those who wish to learn ; in many cases twice a-day will not be too often.

I need scarcely tell you, that while in the wards it is your duty to remember that you are in the sick room ; what your own good sense informs you would be required in the room of a private patient, it will be your wisdom to imitate as nearly as possible in the wards. As the good feelings of your nature would at all times induce you to avoid giving unnecessary pain to those who are the objects of your professional care, so you will be cautious not to let drop any expression calculated to excite undue apprehension ; and you will be anxious to avoid any appearance of levity, or a careless forgetfulness of the sufferer, while your curiosity is excited to enthusiasm, almost to gratification, in contemplating the disease.

I will next call your attention to what I believe to be the most truly useful part of your practical studies,—I mean the CLINICAL LECTURES and REPORTS, which are regularly delivered during six months of the winter. To many of you I need not explain the object of the Clinical Course ; and yet, that there may be no misunderstanding, I will do so. Two spacious wards, containing about



twenty males and twenty females, are set apart for receiving such patients, selected from all who are admitted into the hospital, as the physician may deem most instructive to illustrate disease. The Clinical Clerk, on the admission of each patient into these wards, takes down the previous history of the case, and a full account of the present symptoms. The report, having received the sanction of the physician, is entered in the Clinical Journal. The physician attends every day, meeting the pupils at the stated hour; and at the bedside of the patient, after making his inquiries in the presence of the pupils, gives a report, and dictates the prescription he judges fit:—these are entered in the Journal, and every facility is given to the students to copy out these reports into their own note-books. The Clinical Clerk makes a second visit in the evening, noticing any remarkable circumstance which may have occurred, and the pupils are at liberty to accompany him. Thus the most careful attention may be paid to every case; and besides the daily explanations given by the physician at the bedside of the patient, one day in each week a lecture is delivered in this theatre, founded on the occurrences of the ward.

This simple statement will, I trust, need no



comment. No more effectual plan has ever been devised of making young men acquainted with their profession, than this. It is introducing them at once to the very essence of their pursuit: the disease, the practice, are before them, stage by stage, and step by step.

There is one other means of education to which I would refer as immediately connected with the subject before us; and that is, the SOCIETY which assembles in this room every Saturday evening. This may be considered, in many respects, analogous to other associations of medical men meeting for the discussion of the various topics which interest them in practice; but there is this great difference,—that on certain evenings almost the whole, and always a very large proportion, of those who compose the meetings, are as yet to be considered in the light of students only, and the proceedings of the Society to be viewed as forming part of their education. In the acquisition and the extension of medical knowledge, it is not enough to collect facts, or simply to hear and read what others have thought and said: small indeed would be our progress if we were not able to bring those facts to bear upon each other, and to deduce something like inferences from them



for ourselves,—if we did not reason on facts, and consider well the deductions of others : and it is to bring our minds to this process, under circumstances when our reasonings and deductions are at once to be corrected by the sharp mind of some attentive opponent, that Societies of this kind become truly useful to the mental culture of the medical man. Besides this, a knowledge that any particular subject is to be discussed, leads the diligent student to seek beforehand for information ; to read what has been said by others, and attempt in private to make up his mind upon the various points which the subject involves, that he may the better understand the arguments of others, or be able to advance his own ; and as facilitating these objects, I may mention the LIBRARY and READING-ROOM, which are always open to your use. If, in addition to these advantages, chiefly depending on the students, our Society is, by the kind attendance of men of extensive practice, who have been educated in this school, or have learnt to respect its institutions, supplied with facts in themselves instructive or new ; and in this way our proceedings assume the form and interest of those associations of medical men, whose object is not so much the advantage de-

rived from the collision of opinion, as the acquisition of information and the interchange of knowledge;—then do we combine within ourselves all that is most valuable both for the student and for the practitioner. Taking this view of the objects of the Society, the presence of a few men more advanced than himself should not deter the student from entering freely into the discussions which arise; and the more advanced and more experienced member should never forget that his additional knowledge or tact has been the result of opportunities which time only can supply; and all should remember, that the only legitimate result of discussion is the ascertaining of TRUTH; and while this is carefully borne in mind, and honestly acted upon, there is not much fear that any one will be led to transgress the rules of friendly discourse; for although a man may feel momentary irritation at the obtuseness of an opponent, or mortification at his own want of skill in advancing the arguments which have convinced himself, yet if he is confident that there is no deficiency of good faith on the part of his antagonist, there can be no good reason for that unkind feeling, or those angry expressions, against which I am sure I need not caution any who now hear me.



Having said so much with a view of introducing our subject, and of pointing out the relative importance of the different means, which you now have within your grasp, of cultivating your powers of observation, and studying the practice of medicine, I shall detain you no longer, but to entreat you to remember that our Lectures, let them be as elaborate as they may, can still form but a meagre text-book to the book of Nature; and their best praise must ever be, that they have served you as a useful INDEX to the treasures of that inexhaustible volume, which, without some such guide, would bewilder you by its variety, or overwhelm you with its riches.

THE END.

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