

Remarks on the unity of the body : as illustrated by some of the more striking phenomena of sympathy, both mental and corporeal, with a view of enlarging the grounds and improving the application of the constitutional treatment of local diseases / by George Macilwain.

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REMARKS
ON THE
UNITY OF THE BODY,
AS ILLUSTRATED BY
SOME OF THE MORE STRIKING PHENOMENA
OF
SYMPATHY,
BOTH MENTAL AND CORPOREAL,
WITH A VIEW OF ENLARGING THE GROUNDS AND IMPROVING THE
APPLICATION OF THE
CONSTITUTIONAL
TREATMENT OF
LOCAL DISEASES.

BY
GEORGE MACILWAIN,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS; FELLOW OF THE ROYAL
MED. AND CHIR. SOC.; SURGEON TO THE FINSBURY DISPENSARY;
CONSULTING SURGEON TO THE ST. ANN'S SOCIETY; AND
LATE SURGEON TO THE CITY OF LONDON TRUSS
SOCIETY.

“However these things are in our depraved judgments and affections, yet
Truth, which can alone judge itself, teaches, that the search, or courting the
acquaintance and possession thereof, is the sovereign good of human nature.”

BACON

LONDON:
PUBLISHED BY S. HIGHLEY,
FLEET STREET.

1836.

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BY

GEORGE MACLEWAIN,

LONDON,
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PIERCE STREET.

P R E F A C E.

ALTHOUGH the science of Surgery may now be said to be founded on that "connexion of all parts with each other," which appears to have been a subject of such interesting contemplation to John Hunter, still it is to Mr. Abernethy that we are indebted for that practical application of it, which he so properly termed "The Constitutional Treatment of Local Diseases." Mr. Abernethy may truly be said to have revolutionized the science of Surgery; since a practice which was formerly confined to, or at least was chiefly characterized by, ministering to a part, now commences (although it by no means excludes local remedies), and often successfully concludes, by measures directed to the correction of the disordered state of the constitution. So far Mr. Abernethy's principles are in useful

operation; but whether the state of the constitution be enquired into with the requisite industry, or ministered to with that scrutinizing attention to the various functions, on which the successful application of these principles so much depends, may justly be questioned. Still more doubtful is it whether the exhibition of remedies be conducted with those logical cautions, on which we must rely for any approach to accuracy in our deductions,—important in all investigations, and in none more than those which relate to sciences so far from exact as Medicine or Surgery. It is not, perhaps, proper or expedient, in this place, to enquire into the causes whence the circumstances to which I have just alluded may have arisen. It is more to the purpose to assist in effecting their removal: and however humble any iota of contribution to this object may be, we should not reject it, if it appear well intentioned.

The constitutional treatment of local diseases is so beautifully illustrated, and so convincingly enforced, by considerations which refer to the chylopoietic viscera, that

it may perhaps have been allowed to rest too exclusively on such considerations; and thus, under the influence of prejudice, or misconception, may have frequently encountered scepticism, where, had the argument been more enlarged, it would have carried conviction. Now, nothing appears more emphatically to demonstrate that Unity of the Body, on which Mr. Abernethy's principles are essentially based, than the consideration of the phenomena of Sympathy; and to arrange some of the more important of these in a form which, if it do not challenge correctness, shall at least not disgust by its difficulty, has been my first object. In order to impress that linking together of individual existences, constituting the connexion of the whole with all its parts, I have endeavoured to shew that the mind furnishes its quota of illustration. I have also endeavoured to exemplify the bearings which the sympathies especially, have on the explanation of diseases; and in, not only establishing the excellence, but also in improving and enlarging the application of the constitutional treatment of them. In con-

ducting the illustrations, there is no one sympathy of which twenty more manifestations might not have been mentioned ; but this, though very necessary in a work with no other object than a systematic account of the sympathies of the body, would be inconsistent with the design of this volume ; whilst, for the purposes of the argument, one fact, with regard to an individual sympathy, if it be indisputable, is as good as twenty. It may have happened, that I have not always made the most happy selection in the example of a given sympathy ; but I know not how this objection could have been certainly avoided ; because what appears very trite and demonstrative to one man, may not be so to another.

With the tabular view, which I have annexed at the end of the volume, will be found its requisite apology.

Last year, in an endeavour to correct some misconceptions which prevail with regard to the opinions of Mr. Abernethy, I added such arguments as a general view of the influence of the digestive organs seemed to furnish, to awaken a more lively

and strict attention to the principles which it was my object to advocate. This discourse concludes the present volume.

I may observe, that the "Remarks," &c. constituted some introductory lectures, and that they have been allowed to retain nearly their original form, with the exceptions of such breaks, or divisions, as seemed calculated to aid their perspicuity.

Argyll Place,

Dec. 1835.

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as might have been necessary to
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CHAPTER I.

WHETHER we study accidents, or diseases, or reflect on the means by which they are relieved, nothing appears more important, nothing more essential to Scientific Surgery, than a conviction of the perfect Unity of the Body—by which I mean, an enlarged view of the animal œconomy, which, whilst it recognizes a multiplicity of organs, presenting a varied arrangement of comparatively few elements;—which, whilst it embraces a number of facts, infinitely modified in their relations to the whole body, and to each other, shall yet contemplate them as parts of a grand whole, as constituting one integral fabric, and combining in one object; the life of the individual. This view of the subject lends the greatest interest to the progressing accumulations of experience and observation;

it explains the uses of facts so accumulated, in a manner most easy and most consonant with reason; and most readily confers on us the power of applying them with promptitude, either to the preservation of health, to the correction of disease, or to its suspension, or amelioration, where correction is beyond our power.

To the surgeon, the labours of John Hunter owe their chief value to the force with which they inculcate this principle of study; nor can the investigations of Mr. Abernethy, nor the light which his genius threw on those of Mr. Hunter, be remembered with a more just gratitude, than when viewed as contributing so largely as they unquestionably did, to establish such views of the animal œconomy. On a former occasion, I endeavoured, in correcting some misapprehensions which exist with regard to the opinions of Mr. Abernethy, to enforce this connexion of all the parts of the body with each other, by such illustrations as were afforded by a cursory consideration of the Digestive Organs* ; and also to

* See the concluding discourse of the volume.

explain how the opinions of Mr. Hunter and Mr. Abernethy, though commencing at different points, and taking different courses, ultimately met in an identity of conclusion.

In furtherance of this object, I mean the connexion of all parts with each other ; I wish now to direct your attention to those phenomena which, though inscrutable in their nature, are very apparent in their operation ; which, like sentinels to the animal œconomy, guard its portals from noxious influences, communicate alarm when they shall have gained admittance, or excite exertions for their expulsion. I wish to consider those laws which contribute so largely to our happiness, or misery, according as they operate in the harmony of health, or in that *unbalancing* of the functions which characterizes disease. It is to those mysterious links, in the chain of vital phenomena, which constitute the *sympathies* of the body, that I claim your attention. It appears to me that their importance in the treatment of

diseases is by no means duly appreciated ; that a more frequent and easy recurrence to the wide range of facts which they comprise is absolutely necessary ; and that the first step to this must be a closer and a more analytical examination than we have been accustomed to afford them.

If medico-philosophical enquiry present no subject more important or interesting ; none having more direct bearings on the treatment of disease ; it is equally true that it furnishes none more difficult.

Its difficulties render enquiry laborious and ungrateful ; its doubts, with nothing decided but their infinity, repress the desire for investigation. Were we discouraged, however, by difficulty, knowledge would no longer be progressive, and we should be deprived of many unfading sources of enjoyment, not only the highest as being most intellectual, but the best as being most pure.

Let us rather strive to make the difficulties themselves our coadjutors ; let them teach us that circumspection in enquiry

which examines every part of a subject, without being allured by the more prominent or seductive points of it. Let them induce a ceaseless caution in our conclusions. Let them, in impressing on us the finite nature of our faculties, induce an humbleness of mind, which, if it does not always conduct us to the sanctuary of truth, at least teaches us to avoid the fastnesses of prejudice; diffuses a calmness and serenity through the mind most favourable to mental exertion; and preserves us from disappointment, when we find how limited those results prove, which are alone within the reach of our measured perceptions.

Though the final causes of things be concealed from us, as probably neither adapted to our present capacity nor our happiness; yet, so far as the progress of knowledge has hitherto enabled us to judge, it would appear, that those facts, which are really useful to us, lie well open to investigation, and are easily appreciable by the human understanding. It would also seem, that there is scarcely any part of our knowledge, however recondite, of which some

type—shall I say suggestion?—has not been presented on the very surface of nature. We know not the nature of light, still less of the instrument by which the Creator puts it in such rapid motion; but a thousand phenomena, of daily occurrence, illustrate its laws; nay, even its composite nature, a comparatively recent discovery, has always been exemplified in a phenomenon no less striking than the rainbow. How strange it seems to us, when we consider such matters for the first time, that the principal agents in nature should be invisible! as electricity, galvanism; or that so much of matter, should be resolvable into invisible gases; yet we find a type of this in the very air we breathe; the substantial nature of which, if not suggested by respiration, is pleasingly disclosed to us in the fanning of the breeze, or strikingly demonstrated in the sweeping of the tempest.

It appears to have required the mind of a Newton, to have proved, by mathematical, the most approved method of human ratiocination, that the hexagonal form of the bee-cell was actually the best possible for

œconomy of space*. Every bee-hive, however, shewed its beautiful and successful adaptation to the adjustment of thousands in a very small space; who, next to their number and industry, were so distinguished for the order of an apparently crowded community, as to have furnished its most interesting example to man in all ages; an illustration as simple and remarkable, as the proof of the principle of the rule might be difficult; and which would suggest to the natural theologian the same conclusion which Newton's calculus would demonstrate to the mathematician.

Numerous similar illustrations of the valuable parts of subjects, lying near the surface, might be adduced. Let us hope that this may ultimately prove the case with regard to the sympathies of the body. Mr. Hunter was strongly impressed with

* How strikingly does this suggest that limited reliance on our own senses which I cannot but think is too often overlooked by anatomical investigators, and that (as Mr. Abernethy used to observe) many things, though not perceivable by our senses, are not the less demonstrable to reason.

their importance, and laboured hard, if not to explain their nature, at least to mark their operation. Mr. Abernethy, who heard Mr. Hunter's lectures, used to say, with the quick perception, or, if you please, with the characteristic impatience of genius, that Mr. Hunter, at last, only proved that the whole, sympathized with all its parts. This, no doubt, expressed the result and intention of Mr. Hunter's endeavours; but it may reasonably be said, that a more analytical treatment of such a subject, especially in the hands of Mr. Abernethy, would have much enlarged the utility of Mr. Hunter's discourses; have impressed the facts much more strongly on the mind, and have more clearly unfolded the influence of this sympathy, in the derangement of health, and in the treatment of disease.

The analytical examination of the grounds on which a fact rests, not only tends to strengthen our belief in it, but is necessary, if we require conviction. It is a kind of intellectual chemistry, which, resolving a fact into its constituent prin-

ciples, discloses the extent, variety, and importance, of its application. It reveals to us numerous phenomena, no more suggested by the ultimate fact which they tend to establish, than the homogeneous appearance of many compounds, suggests their complicated elements. To know the strength of a chain, we must be convinced of its unity; and this we only effect by examining the links of which it is composed.

Conviction, thus obtained, (to say nothing of the useful views frequently arising in its progress) is emphatically our own; the mind, recognizing it as such, applies it with promptitude, almost without an effort, to the purposes it may be designed to serve. Compared to faith, however unreserved, on the dicta of another, it is the inductive result of the highest intellectual operation, contrasted with a blind confidence in authority, in which reason has commonly little or no share. No one can doubt that Mr. Hunter entertained such views: it is certain he treated the sub-

ject in the way they would recommend; viz. by an examination in detail.

It cannot, perhaps, be denied, that anatomy has furnished some assistance in enquiring into the phenomena of Sympathy; but it is to be feared that more has been expected from it than it is capable of supplying; whilst, by engrossing too exclusive an attention, it may sometimes have closed more enlarged, and perhaps more promising, avenues for investigation. In pointing out universal nervous communications, it suggests, a priori, the functional integrity of the body; in shewing identical tissues, arranged in different situations, and, in assisting our physiological conclusions as to individual organs, it facilitates the classification of phenomena; applied to the explanation of individual sympathies, it affords us little help: if it occasionally hold out promise in this way, it is but to allure us to disappointment.

The consideration of the eighth pair of nerves and its communications with the

branches of the cervical ganglia of the sympathetic, and the sympathies of certain parts to which these are distributed; and the inadequacy of any application, I may say the absence of analogous facts, when we consider other sympathies no less remarkable, the uterus and stomach, for example,—illustrate this remark.

We do not indeed expect anatomy to assist us in explaining the most marked sympathy of all; namely, that between mind and body; but its failure here is but typical of its incompetency to explain many *corporeal* phenomena. We shall probably obtain more advantage from a careful observation and notation of the phenomena which are daily unfolded to us; of the circumstances by which they are preceded, accompanied, or followed; and, when our facts shall have become multiplied, by examining how far we can establish that co-existence or sequence of any of them, which shall suggest the idea of a law, in the mode of their production. At present, we can be said to know scarcely anything of the *laws* of sympathy. They exercise a momentous

influence, and generally of a salutary tendency. If they sometimes contribute to our decline, they but remind us that death, as well as life, is a law of our nature.

CHAPTER II.

IN contemplating the sympathies of the body, it is more easy to make a convenient arrangement than a scientific classification.

Sympathetic actions are sometimes similar to the primary impressions; sometimes not*. Affections of the absorbent glands are sometimes similar to those which produce them; sometimes, common irritation. When gonorrhœa affects the eye, the action induced is similar; when it affects the testes, it is not so.

Sympathy is sometimes reciprocal; as in the head and stomach, stomach and bowels, or skin and kidney: at other times it appears to act chiefly in one direction;

* See J. Hunter; Reminiscences, Art. Sympathy.

as when the testicle sympathizes with the urethra, or the stomach with the testicle. These are common occurrences. But it is seldom that we see the testicle sympathizing with the stomach, or the urethra with the testicle.

Sometimes, sympathetic actions are more prominent than the primary impressions; as when the head sympathizes with the stomach or liver; or the knee in incipient diseases of the hip; or the shoulder with the liver: at other times, less so; as in many irregularities of function in the kidney, either in dyspepsia, or disordered bowels.

Sometimes, they appear to have a reference to the properties, whether functional or organic, of the parts between which they occur; as in the heart and lungs; or in mucous membranes: sometimes, they have no such reference; as in the uterus and stomach, or testicle and parotid glands.

Sometimes, they appear in relation to continuity of surface; as in the skin, peritonæum, or urethra; or contiguity of position, as bladder and rectum; or to other mechanical relations; as those of the vena portæ.

and hæmorrhoidal veins: sometimes, without any such relation, as in the sympathy of the stomach and kidney. On the other hand, these relations sometimes exist, without any manifestation of sympathy; as in the contiguity of muscles and absorbent glands, or the mechanical relations of the thyroid gland and larynx. The larynx sympathizes very little with the thyroid gland, unless this be changed in structure. Bronchocele, which is merely an enlargement of the natural structure of the thyroid, seldom produces any affection of the larynx, unless it be from its weight and pressure. There is an example of the absence of any sympathy of the larynx in a patient now in the Dispensary. She is a young woman, aged 18, a native of Buckinghamshire. The bronchocele measures, in its transverse diameter, $13\frac{7}{8}$ inches; its circumference measures two feet, less three quarters of an inch.

The modes in which sympathetic actions are manifested are indefinitely modified, as regards the parts between which they are developed, in different persons; or at different times in the same individual; either as

the result of natural peculiarity, or that, consequent on disease. A large volume would scarcely afford space for a full discussion of this extensive subject: I need not say that it is impossible to accomplish it in the limits which various considerations have induced me to prescribe to these observations.

It appears convenient, in the first place, to divide sympathy into common, and proper; general or particular: and, having explained the former of these terms, to make such subdivisions of the latter, as shall appear necessary.

By common or general sympathy, I mean that sympathy of the whole with all its parts, demonstrated by the multiform and interesting phenomena, usually included in the term constitutional irritation. A sympathy, peculiar to no organ, but common to every structure in the body; seen alike in primary affections of the nervous, respiratory, and circulating systems; the whole of the chylo-poietic viscera, the urinary and generative organs; in glandular structures, whether absorbing or secreting organs; in skin, muscle, bone, tendons,

ligament, cartilage, and in the cellular tissue, whether this be expanded into sheets of membrane, or employed in the more common office, as a connecting medium ; a sympathy which, though more marked in some instances than others, as in the effects of teething, and in symptomatic fever, is nevertheless seen, in greater or less degree, in almost every malady presented to the physician or surgeon. The great example of that unity to which all the sympathies contribute, it is as it were the focal centre around which these sympathies revolve, and the point in which their converging influences meet for the preservation of the body ; a chain connecting all parts by the particular or individual sympathies, some of which we are next to examine.

First, then, we will divide these, as they appear to be more or less influenced by the circumstances which the terms imply ; into the structural, functional, and intermediate : sympathies of mechanical relation ; sympathy of absorbent glands ; anomalous sympathies ; sympathies of idiosyncrasy. These divisions will probably be sufficient for our

purpose. The illustrations will necessarily be brief, and, for obvious reasons, as trite as possible.

STRUCTURAL DIVISION,

*Including parts presenting either identity
or analogy of structure.*

The parts which seem most conveniently to range themselves in this division, are the mucous, serous, and fibrous membranes, fibrous structures generally, muscles, bones, the apparatus of joints, and cellular tissue.

Mucous Membranes.

The mucous membranes present the largest surface in the body, the skin only excepted, of which indeed they appear but a modified involution. Their sympathies are marked and important, and, in relation to the skin especially (as will hereafter be explained), exert a very extensive influence in the production of the diseases of this climate.

The sympathy of mucous membranes with each other is seen in the various affections of the stomach, producing disorders of other portions of the alimentary canal, or vice versa; or in the same reciprocity of sympathy exemplified in the mouth, nose, fauces, trachea, and bronchial ramifications, and stomach; in the sympathy of the urethra and bladder; or in the conjunctiva of the eye with the urethra, in various cases of gonorrhœal ophthalmia, and other minor affections of a similar kind, but not falling under that designation. Irritation of the alimentary canal from worms, or otherwise, will produce irritation in the nose; or irritation applied to the nose, especially that resulting from snuff, will affect the alimentary canal.

The sympathies of the mucous membranes with the skin are equally important. They are displayed in affections of the stomach, bowels, lungs, and urinary organs; and are reciprocal, appearing in a manner equally marked, whether the impressions on these organs be primary; or secondary, as from cold. The sympathy of the mucous

membranes of the alimentary canal and skin is further seen in the whole of the diseases of the skin, which, for the most part, are but examples of such sympathy.

Fibrous Structures,

Such as the dura mater, pericardium, periosteum, ligaments, tendon, &c. have marked sympathies with each other; and frequently exemplify, in their readiness to sympathize with general disturbance, a remark of Mr. Abernethy's; viz. that parts most disposed to suffer, under such circumstances, were those either possessing "least life, or most susceptibility." The sympathy of these parts with each other, and with the skin, is best exemplified in many instances of a common cold, and in the phenomena of rheumatism; with the skin, in the disorder frequently impressed through that organ, and frequently immediately subjacent to the part on which the cold has been applied; with each other, in the frequent metastasis of most of their affections, (rheumatism more especially): from one joint

to another, or from a joint to some fibrous membrane, even that of the heart itself. In the fasciæ, both in their proneness to sympathize with similar structures, as joints, as well as to be primarily affected by the same impressions, as cold.

A case occurred, about four years ago, of a very severe inflammation of the fascia of the thigh, ultimately involving the femoral vein, which, from its general interest, I think worth relation. A poor boy, not very well clad, was sitting on a gate on a cold day, and he felt the wind blow on his thigh, which was quickly followed by a very acute pain in the same situation. He immediately went home, which he reached with difficulty; and on the second day his parents applied at the Dispensary. On examining his thigh, it was neither red nor swollen, or very little, but extremely painful, and exquisitely tender on the slightest pressure. I told the gentlemen who accompanied me that I regarded it as inflammation of the fascia. His health was much disordered, and his pulse indicated excitement with want of power. Leeches were

freely applied to the part, with fomentations and poultices; and he was seen again the next day. The limb was now swollen, but not discoloured, excessively painful, and exhibited an appearance which led me to remark, that had it been in a woman recently parturient, it would be called phlegmasia dolens. The treatment consisted of further local depletion and mercury; but the rapidly increasing depression of the system, which had been observed from the first, obliged us to relinquish the plan, and endeavour to support him by such means as seem likely not to produce excitement. Notwithstanding the most sedulous attention to the conflicting indications, he gradually sank. Examination discovered a very considerable thickening of the fascia of the thigh, and of the cellular tissue: a moderate quantity of pus lay around and in the course of the femoral vein, which, on being laid open, was found also to contain pus, with considerable depositions of coagulable lymph.

Another case, in all respects similar, occurred about a year after the preceding;

but, as indisposition prevented me from seeing the case more than twice, I am indebted to Mr. Wright, an intelligent pupil, who had the care of the case, for the following particulars:—He does not remember that the exact cause was ascertained: the treatment was the same as in the former case, at first; and, subsequently thereto, was directed to the regulation of his diet, and the alvine secretions. This boy recovered.

Rheumatism and colds also illustrate the sympathies which exist between the fibrous and mucous structures; they are seen in the disordered secretions of the latter, which, from some surface or other, so constantly attend disordered affections of fibrous structures originating in cold. Nothing, however, more strikingly demonstrates the sympathy of mucous and fibrous structures, than the phenomena of stricture, and what has been called Gonorrhœal Rheumatism.

Bone.

I mention bone in this place as ranging itself most conveniently with the structure

of joints. Its sympathy with itself is perhaps best illustrated in metastasis, where the affection of the bone has produced no organic derangement, and in the quick participation of the osseous system in impressions applied to any part of it. The sympathy of bone with fibrous structures is exemplified in its ready participation in impressions primarily addressed to those structures; and in its own susceptibility of the primary influence of such impressions. The phenomena of rheumatism, and the abuse of mercury, illustrate this sympathy.

Muscles.

One of the most common examples of muscular sympathy is the spasm which sometimes accompanies Rheumatism; and a fearful proof of this sympathy, as well as that which appears to exist between muscles and less highly organized fibrous structures, is seen in the occasional history, and always in the phenomena, of tetanus. Ordinarily, however, the muscles do not evince any very remarkable tendency to sympathize

with each other, unless we regard that equilibrium, as an example of it, which is seen in the balance of their actions.

Perhaps so large a portion of them being under the influence of the will (which never happens with regard to organs, whose constant action is necessary to life), may have some effect in rendering their ordinary sympathies less remarkable, as they would have been obviously, inconvenient.

It may be observed, that in proportion as muscles become removed from the influence of volition, so do their sympathies become enlarged, or excitable.

The sphincter muscles, over which the will has a very restricted control, sympathize very readily with each other, as is seen in many affections of the bladder and rectum.

The diaphragm and abdominal muscles, which are neither under the dominion of the will, nor absolutely involuntary, have enlarged and very important sympathies; and in something like proportion to their subjection to volition. The abdominal muscles present scarcely any phenomena, over which the will has not some power

of modification; the diaphragm presents several over which volition has scarcely any, I had almost said, no power; as in hiccough, and some of the more violent effects of the passions.

We accordingly find that the abdominal muscles present very interesting sympathetic phenomena; both with regard to the diaphragm, and the viscera which they envelope and protect: yet that the sympathies of the diaphragm, are much more vivacious and extensive; and only surpassed by those of the heart itself, which, I need scarcely add, is altogether an involuntary muscle.

Voluntary muscles, however, occasionally display great sympathy with the parts in contact with them; as when they suffer from cold, as in the common stiff neck, as it is called; or when their irritability is excited, as in the spasm of fracture; or in the tenacity with which they maintain a dislocation. It is curious, however, to observe, that, under such circumstances, voluntary muscles acquire properties not natural to them; but which appertain to those which are involuntary; viz. that the power of volition becomes

much limited, or the muscles act independently of it; and that they act also much longer without intermission, than they can do under ordinary circumstances.

Serous Membranes.

The sympathies of the serous membranes with each other, are perhaps not so frequent, nor so marked, as those of the mucous structures; neither are the serous membranes exposed so frequently to the agency of external impressions. They present phenomena, however, unequivocally demonstrative of their sympathetic connexion. The sympathy which a serous membrane exhibits with all its parts, is exemplified in the fact, that there is no surface in the body (if we except the skin) over which an action spreads with the same rapidity, or with such a preservation of its identity: a disposition of the greatest importance where the membrane is connected with important viscera; rendering inflammations of them highly dangerous, both from the extent of surface which they so rapidly occupy, and the number and

importance of the functions which they embarrass or suspend. The serous membranes, as secreting surfaces, sympathize with generally loaded states of the vascular system, whether dependent on absolute repletion, or that which is consequent on the diminished power or impaired function of particular organs: as we see in inflammatory dropsy, or effusions connected with diseases of the abdominal or thoracic viscera: Apparently composed of condensed cellular tissue; in other respects, they appear, like it, to derive their sympathies from the organs with which they are in mechanical relation.

Cellular Tissue.

Regarded abstractedly, there does not appear to be much peculiarity in the sympathy of the cellular system. Serving as a medium of communication, as well as a bond of connexion between different parts, its preservative actions seem chiefly concerned in modifying these relations. Its sympathy, in the ordinary sense of that term, seems to be in common with the part, to whose

structure it contributes, or in whose vicinity it occurs.

Pathologically considered; cellular tissue presents many phenomena, highly important and interesting; and which appear referable to a sympathetic connexion with the parts with which it is in relation.

These phenomena seem to consist of actions of a salutary kind, and may be referred to one principle; viz. the limitation of disease. A connecting medium for all parts of the body, very various in its density; it appears, nevertheless, seldom to lose either its cellular character, or its elasticity. These properties, whether separate, or in conjunction, appear to be favourable to the communication of vascular excitement, which in some variety or degree, seems to be the first step in disease. Wherever disease occurs, the cellular tissue generally takes on an action destructive of both its cellular and elastic property; this is seen in the adhesive circumvallation of abscess, and in the endless variety of thickening and condensation of this structure, which accompanies most

other diseases. Its salutary tendency in limiting diseased action, may, I think, be inferred from what happens when it does not take place at all, or only in a slight degree, or where the inflammatory excitement exceeds that which seems necessary to the process in question; of which erysipelas appears to present an exemplification. This may be sufficient for my present purpose; but no structure in the body would require more space for a full discussion of its sympathies, if viewed with regard to its pathological relations.

Absorbent Glands.

The sympathies of these parts present phenomena of a mixed and varied character, but which, to prevent repetition, may be mentioned in this place. Their sympathy with the skin is well marked and important. Like it, they may be considered as constituting portals to the body; having, in addition to the function of absorption, that of staying, and perhaps modifying, any matter which may have been so far, admitted. The

influence of cold in causing glandular irritation of a simple kind, or in exciting the peculiar action of scrophula, where there exists any predisposition to it, strikingly exemplifies this sympathy. Occasionally it appears in the nature of the contiguous sympathy of Mr. Hunter; as when the glands of the neck inflame in consequence of cold applied to the skin covering them, or in its immediate vicinity.

Often enough, however, the exciting cause is distant; as where inflamed glands occur from wet feet: or general, as when the whole skin has been affected by cold and moisture. The sympathy of absorbent glands with diseases in their neighbourhood is very constant; but it is characterized by different actions in different cases. Sometimes it appears of a specific character; sometimes not. The former case suggests the presence of the specific stimulus consequent on its absorption; the latter, the communication of irritation, either by continuity of surface between the gland and the absorbents leading to it, or from a sympathy of parts, concurring in function, independ-

ently of such continuity. For example: a cancer may affect the glands in its vicinity; but the action in the gland may be specific, or only that of common irritation. Again, the inflamed inguinal gland, consequent on irritation in the foot, by a toe-nail or otherwise, hardly justifies the idea of absorption of irritating matter; whilst the specific actions sometimes accompanying or succeeding to sores on the penis, the result of external influence, scarcely allows us to entertain any other. Like all parts which I have ventured to call the portals of the body, absorbent glands have a very lively sympathy with the general system. Glandular irritation, however induced, usually gives rise to constitutional disturbance; and primary constitutional disorder very commonly superinduces glandular irritation. This is seen in fevers, and in many minor derangements of the general health, especially those characterized by disorder of the digestive organs.

Salivary Glands

Sympathize with each other, sometimes by an action similar to the primary impres-

sion ; more generally, perhaps, by an increase of their secretory function. This difference is seen in different cases where there is no cognizable difference in the primary impression ; say, an inflammatory swelling of any one of them. Their sympathy with peculiar disordered conditions of the system is familiarly exemplified in ptyalism ; and with the stomach, in most conditions, whether of health or disease ; hunger, and sickness, especially. Had we the same opportunity of observing it, the pancreas would probably exhibit corresponding sympathies with the general system, and that part of the alimentary canal to whose functions it appears to contribute. The paucity or excess of salivary secretion, observable in different stages of various affections of the mouth, nose, and fauces, whether occurring from cold, as inflammation, or from disturbance of the general health ; and the increased secretion on mechanical stimulation, or on mere exposure of these parts to the atmosphere, denote the sympathy between them and the salivary glands, of a kind, analogous to that

manifested by the lachrymal gland, on irritation, natural or otherwise, of the conjunctiva. The sympathy seen between the salivary glands (the parotid more especially) and the testicle, seems to me an intermediate action; the connecting links being the stomach, and the general disturbance of the constitution. That this is the channel, appears probable from the fact, that the only example of it—viz. that seen in cynanche parotidea, or mumps—is usually accompanied by considerable disorder of the stomach and general system. The sympathy, however, is not constantly developed; neither is the stomachic, nor the general disorder of which I have spoken. I have not seen enough of this disease to say what relation there exists between the development of the sympathy in question, and the degree of functional disturbance, of which I have spoken. If there be a relation between them, it would strengthen the view I have suggested; if otherwise, it would prove it untenable. The occurrence of it at a time of life when the stomach, and general system are highly susceptible, perhaps rather favors the opinion than otherwise.

Sympathies of Mechanical Relation.

I introduce here the few remarks I have to offer on this division, because I can at no future period mention them, more conveniently. The phenomena to which they refer, are perhaps not usually considered as sympathetic, in the ordinary sense of the term ; but, in a practical point of view, it appears more useful so to consider them. The best illustration is afforded by the various vascular disturbances, so frequently resulting from, or connected with, repletion of the system of the vena portæ, familiarly exemplified in hæmorrhoids, and in many other affections of the rectum ; but which seem, in many cases, no less demonstrably connected with hepatic disorder, whether this be occasioned by a loaded condition of the liver, abstractedly considered, or arising, as I am convinced it frequently does, from disordered action of the heart. In the present state of our knowledge of the functions of the liver, (between which and the heart I cannot help thinking that we shall one day discover more important relations than those at present known) ; it seems

most safe to connect the sympathies of these organs with their mechanical relations. That, disordered action of the heart, occasions hepatic congestion, by affording more or less impediment to the return of the blood through the *venæ cavæ hepaticæ*, and that the heart, on the other hand, is often oppressed by the quantity (perhaps quality also) of blood derived from this source, is, I think, very evident. There are many phenomena which it seems impossible to explain, on any other supposition, than that the liver must participate in the venous congestion which they demonstrate; whilst, as regards the oppression of the heart, produced through the liver, the evidence is frequent and striking; and I believe that at least some of those cases of palpitation, which are referred to dyspepsia, might with more propriety be referred to the source to which I am alluding. In many instances, where disturbance of the heart has accompanied general disorder, nothing gives so decided relief as producing copious biliary secretions; and this too, where direct depletion seems rather to aggravate the sym-

ptoms in question. I know a case, where, with an exceedingly disturbed state of the nervous and vascular systems, in which the heart was so irritable, that even rising from a seat, would increase its beat from 20 to 30 in a minute, nothing appeared to give relief but calomel, in occasional doses, which always increased the biliary secretion ; except, occasional discharges of blood from the rectum, which always produced equal benefit ; the pulse becoming not only nearly natural, but remaining for some time steady and inexcitable. I am not desirous of expanding this argument ; for, after all, my wish is, as I have before observed, to make an arrangement, which shall conveniently register the connexion of different parts, rather than have any pretension to a perfect classification, scientifically considered. Although the facts which I have mentioned, in the effusion taking place from serous membranes, are vital phenomena ; yet that turgescence of vessels, which gives rise to them, is in itself mechanical : and I just revert to it in this place, as conveniently impressing the connexion of these

parts with the organs with which they are in mechanical relation.

The sympathetic affections of the uterus, rectum, and bladder, though offering doubtless some objection to it, seem, for practical purposes, most advantageously included in this division.

The disordered actions of the uterus, as shewn in deficient, disordered, irregular, or profuse catamenia, excited by irregularity of the bowels, and relieved by attention to the regular performance of their functions, constitute cases of almost daily occurrence; and it is very frequently demonstrable, that these disorders are excited by accumulations in the lower bowels. The sympathetic irritability of the bladder, in uterine affections, is also well known. The sympathy of the bladder and rectum, in the male subject,—parts involving so many important considerations in surgery,—seems best arranged in this place. I intended to have considered it in another section; but simplicity of arrangement induced me to abandon that intention. Were I to illustrate the sympathy occasionally seen be-

tween the urethra, bladder, and rectum, in the male subject, I should have to write treatises on their respective diseases; for there is not one which does not, in some way or other, manifest this sympathy. Irritation in the urethra, stricture, affections of the prostate, and stone, shew the power of the urinary apparatus in producing irritation, or even prolapsus of the rectum. Hæmorrhoidal tumors, irritability of the sphincter ani, stricture, whether simple or malign, shew the power which affections of the rectum, exert in disturbing the urethra, prostate, and bladder.

I may remark here, that many organs, whose relations to the heart, present objections to their sympathies with it being classed in this division, still, often appear to have them excited, by means of their mechanical relations. I allude to the instances, in which they are developed by influences, which act primarily, by disturbing the general circulation. The brain, for example, especially if there be any predisposition to cerebral disturbance; as is seen in certain cases of apoplexy.

CHAPTER III.

FUNCTIONAL DIVISION.

IDENTITY, community, or concurrence of function, seem to offer another, convenient basis for classification.

Alimentary Canal.

The sympathetic connexions of the different parts of this tube have been alluded to in the Structural Division; they may be further impressed here.

The sympathetic disturbances of this canal are best marked in affections of its extremities. For example, in that disorder of the stomach, and the whole assimilating functions, which results from disorder or

disease in the rectum; and which is observed in hæmorrhoids of different kinds, irritating descents of small portions of the bowel, abscesses, stricture, or mere irritation. These maladies, though offered to us usually as primary affections, are often themselves but diseased indications of sympathy of the rectum with the other parts of the canal, or with the liver. However, the stomachic affections are often not apparent until the affection of the rectum becomes developed; and then, we have more or less in different cases; flatulence, costiveness, or irritative frequency of action of the lower bowels, wandering pains in the colon, or other bowels, fitful or deficient appetite, and impaired digestion.

Imperfect digestion, where more obviously the primary affection, equally affects the other parts of the canal. This is exemplified in the varying, vitiated and offensive nature of its secretions, in pain, in purged, flatulent, or costive bowels, and often by a disorder so general of the whole canal, that the original affection becomes

masked by the sympathetic general disturbance.

The sympathy of the alimentary canal with the mouth, fauces, and the nose, all of which have something of a concurrent function with it, has been already mentioned; to which, as occasionally referring to these parts, as well as the gustatory sense, may be added, nausea. The sympathies of several parts of the alimentary canal might be enlarged on to any extent; and much might be said on affections which appear as primarily affecting the duodenum; but the facts mentioned are familiar, and appear sufficient: my present object is not furthered by any unnecessary multiplication of illustration.

Alimentary Canal and Skin.

These parts are, as it were, shaded off into each other, by that attenuated modification of cuticle which is seen at the points of communication between the external and internal surfaces of the body. As the two

largest absorbing surfaces in the body, they suggest a striking analogy in function. Their sympathies are familiar, constant, and reciprocal. Neither organ is affected with any disorder with which I am acquainted; scabies perhaps excepted, and that not in every case, without giving rise to, or being accompanied by some manifestation of this sympathy. As regards apparently primary affections of the alimentary canal; vomiting, purging, or pain, present the most frequent and familiar examples of this sympathy, in the varying conditions of the skin which accompany them. Similar sympathetic manifestations accompany almost every form of dyspepsia, and that irregularity of function in the bowels, which either constitutes the main feature or contributes to form such a variety of apparently similar disorders. The reciprocity of this sympathy, excited by causes primarily addressed to the skin, is equally remarkable. It is illustrated by the sickness which is sometimes occasioned by the impression of severe cold; and especially by the various inflammations of the abdominal viscera, which are not unfrequently

consequent on cold applied to the cutaneous surface. The sympathy is also well demonstrated by the relief afforded in such affections by warmth and moisture of the skin, however induced.

Skin and Lungs.

The sympathy of these parts is well known, and may be conveniently classed under the Functional Division.

We may be said, in some sort, to breathe by the skin, and to perspire by the lungs; though the latter seems more marked in some animals than in the human subject. Extensive burns, in the oppression which they produce in respiration, will demonstrate the sympathy between these parts where the primary impression is applied to the skin.

The phenomena of phthisis, where the primary disturbance seems to take place in the respiratory organs, very strikingly demonstrate this sympathy; first, in the catarrhal impression, so frequent at the commencement; 2ndly, in the varying condition

of the cutaneous circulation, throughout the disease ; and, lastly, in the profuse secretion from the skin and bowels ; but always from the former, when the dying lung requires most assistance in its labour of decarbonization.

Skin and Kidney

Seem properly enough viewed as joint emunctories of the body.

All affections of the kidney produce very obvious phenomena in the skin ; evinced by varying states in its circulation ; in its sensations, as those of heat, cold ; and both in the quantity, and, in some cases, quality, of its secretions. In severer forms of the disorder of the kidney, the sympathy of the skin becomes very remarkable ; as in its attempts at vicarious secretion, in suppression of urine, in the rigors, as also in that exsanguous horripilation, which accompanies the more severe stages of calculous or renal disorders. Impressions primarily addressed to the skin, equally evince the sympathy in question, whilst they demonstrate its reciprocity. Sudden change of temperature

invariably affects the kidney; so does the gradual check of perspiration. Another illustration is afforded by the varying quantity of urine, in winter and summer: and the well-known consequence, of the old school trick, of dipping a sleeping school-fellow's hand in water, is by no means a bad example of the same sympathy.

Skin and Heart.

The sympathy between the heart and vascular system, and the skin, seems conveniently enough arranged in this division.

The heart and skin, placed as it were at remote points of the circulation, exhibit their sympathy most commonly in actions which have a manifest tendency to preserve its equilibrium.

If the heart be excited, we soon perceive the skin participate in this action; if it be continued or violent, the skin pours forth its secretions, and thus diminishes the circulating fluids. Walking, running, or any thing which excites the circulation, exemplifies this sympathy. The proximate link

with the skin, in the act of blushing, seems to be its sympathy with the heart ; though this by no means satisfactorily explains this interesting phenomenon. The influence produced on the heart by the passions, produces similar affections of the skin. Anger, if it excite the heart, produces increased vascular action on the skin ; if it depress the heart, which it occasionally does when it is extreme, it produces pallor. Should I have included these phenomena in the list of those of mechanical relation ?—it appears to me not. The profuse and sudden bursting forth of cutaneous secretion in sudden oppressions of the heart, in palpitation, whether the consequence of temporary functional disorder, or during those paroxysms which take place every now and then during organic diseases, well marks this sympathy. The relief which it so commonly affords, equally tends to press it on our observation.

Impressions primarily addressed to the skin, equally affect the heart ; depressing influences, if slight, and of short duration, produce a reaction of the heart ; if they be

continued, so as to depress the powers of the skin, the heart becomes depressed also.

Nothing more familiarly exemplifies this influence than the varying states of the circulation during hot or cold weather, according to its degree, or the duration of its influence.

Many affections of the skin, common to it and the cellular tissue, and which are relieved by means primarily directed to the digestive organs, seem to consist of endeavours on the part of the skin to relieve a loaded state of the circulation. Boil, carbuncle, many cases of erysipelas, and many affections of the skin of a tubercular character, appear examples of this ; but it must be remarked, that mere repletion is seldom the only fault in such cases.

I have a very interesting case at this time under my care, where a disordered state of the circulation, with a tremulous condition of the right arm, allied to paralysis, seems to have been checked by a spontaneous eruption of a tubercular character on the nates.

The decarbonizing function of the skin,

which suggests a relation with the heart, so far, similar to that which exists between the heart and the lungs, may possibly have some influence in the ready sympathy which exists between the parts in question.

Of the Sympathy of the Skin with its several Parts.

This is a sympathy, which, though very familiar, has not, I think, been regarded with the attention it deserves; for, as I shall hereafter endeavour to shew, it exercises a very important influence in the causation of diseases. It will be sufficient to mention, that cold, applied to a very small district of the skin, is frequently capable of impressing the whole of this immense surface with a corresponding sensation; and that warmth, partially applied, frequently diffuses warmth over the whole organ. Irritants also, of various kinds, applied to a small district, will frequently produce an extension of their effects over a very large surface, or even, with intervals, over the whole body: as is sometimes seen in the extension of the ef-

fects of the tartrate of antimony, and in the boils which occasionally succeed to the application of blisters. No part has more extensive sympathies of every kind than the skin; those of the stomach itself, which Mr. Hunter has called the centre of sympathies, are not at all more important. The skin has a sympathy with every part; and this so direct, that it is difficult to trace any intermediate agent. Whether it cover muscle, bone, tendon, ligament, or the mixed structure of joints; whether it be divided from parts merely by cellular tissue, as more frequently is the case, in these examples; or by a thick stratum of different structures, and those even not directly continuous with the part beneath them; as in the chest and abdomen; or when even bone be added to these media, as in the cranium; both the diseases, and the remedies we employ for them, alike demonstrate the universality of the cutaneous sympathy. Without unnecessarily enlarging on the subject, it may be at once observed, that our local applications in the head, chest, and abdomen, though partially otherwise ex-

plicable, present many occurrences which can be alone referred to this sympathy.

Illustrations are seen—in the effects of given degrees of topical, as compared to general bleeding; in local excitements, as compared to general; in the phenomena of counter-irritation, especially where these refer to the chest or abdomen; and in many other phenomena.

The sympathy of the skin with the kidney has been already mentioned. With no part is it more marked than with the whole of the urinary organs; but the phenomena, as presented to us in the histories of stricture, and irritable bladder, are so familiar as to render a mere allusion to them sufficient. I cannot, however, avoid making particular mention of the various eruptive and ulcerative affections observable on those parts of the skin which are contiguous to its point of involution, as I may term it; or its connexion with internal canals, exemplified in affections of the lip, of the margin of the anus, and in the numerous sores consequent on irritable urethra. The extensive sympathies of the skin are equally observable

in other animals, whilst they have been turned to much greater practical advantage in the prevention, if not in the removal, of diseases.

Heart and Kidney.

As connected with a preservation of equilibrium in the circulation, the sympathy between the heart and kidney may be ranged as functional.

There is scarcely any affection of the heart, however slight, which does not present some little tendency to produce sympathetic actions in the kidney; especially where these impressions are addressed first to the nervous system, as seen in fear or temporary kinds of anxiety. It should be observed, however, that the impressions on the nervous system have the power of directly influencing the kidney, without any intermediate affection of the heart, so far at least as can be ascertained; but still this seems to be the exception. Different degrees of mental solicitude produce this effect. All serious affections of the heart are attended by marked sympathy in the

kidney, although they are various in their nature, and in many instances unintelligible. For the most part, they act as relieving the circulation, by either a loaded condition, or what is more common, by an increased quantity of urine.

The varying state of the skin in affections of the heart may very possibly influence this sympathy, either in increasing the actions of the kidney where the circulation of the skin has become depressed, or in diminishing the secreting actions of that organ, where those of the skin have been abundantly excited. There is scarcely any affection of the heart in which these states are not exemplified. The peculiar character of the urine in some affections of the vascular system, as where it contains large quantities of albumen, are further proofs of the sympathy between these parts; but the action itself, so far as I know, has not been satisfactorily explained.

Heart and Lungs.

Regarded as concurring in the function of the distribution of aërated blood to the

body, I mention the sympathy of the heart and lungs in this place.

This might, perhaps, for mere purposes of arrangement, have been mentioned in connexion with sympathies of mechanical relation; but where any correspondence or concurrence of function is obvious and familiar, it seems a preferable association. The sympathy between the heart and lungs seems sometimes to be excited by causes of a chemical, at others, by influences which are of a mechanical kind. Perhaps, when the lungs affect the heart, it may be the former; the lungs not having effected, or only partially, the required change in the circulating blood. On the other hand, when the heart affects the lungs, it is usually by the quantity of the blood, or the unnatural impetus with which it is transmitted; this being too great, not sufficient, or irregular. As the heart seems much more easily excited, and as it is subject to a great number of primary impressions—of a moral kind, for example,—from which the lungs are comparatively exempt, the heart in health more frequently affects the lungs. The sympathy developed by disease, more frequently takes

place, perhaps, in the opposite direction. This, however, is too extensive a subject to enter on; neither is it necessary to the object of this paper. The sympathy is familiar. On a careful consideration of the whole subject, I cannot attach much importance to the nervous connexions as explaining these sympathetic relations. Parts placed near each other afford examples of nervous as well as of vascular communications.

Liver and Bowels.

The sympathies of these parts must be regarded as functional. The bile seems to contribute a natural stimulus to the intestines, inducing the discharge of excrementitious matter, of which it seems, in some degree, to form a part. The regularity of the bowels, every body knows, is materially influenced by properly regulated discharges of bile. Costiveness is almost the invariable result of deficient biliary secretion. It is not quite so frequently remarkable, but nevertheless is true, that disorder, not dis-

tinguishable as other than primary in the bowels, is equally capable of deranging the functions of the liver. This is best seen in cases of mechanical obstruction, and in those cases where sedentary habits or neglect in attending to the calls of nature, have produced a state of bowels and liver in which the evidence is sometimes particularly clear as to the priority of the affection of the bowels*. I shall hereafter remark on the advantages which result from the recollection of the reciprocity of this sympathy.

Stomach and Liver.

The concurrence of these organs in the general function of assimilation, however far we may be from understanding the precise part played by the liver, cannot be doubted. The attacks of biliary disorder,

* I was called the other day to a case of extremely painful affection of the rectum, accompanied by much vitiated condition of biliary secretion, and which the history of the case proves, I think, very clearly to have been a secondary disorder.

derived through the stomach, as well as those of stomachic irritation, apparently dependant on primary biliary disorder, are too common to require particular mention.

These cases also frequently shew, in the remedies which are employed, the advantages of recollecting the reciprocity of the sympathy. Once and for all, I may remark, that it is extremely difficult to say, in a given case, which organ shall have been primarily affected where two or more are simultaneously deranged, or even where the derangement of one only, is observable. It has already been remarked, that the sympathetic affection is sometimes more prominent than the primary impression, sometimes less so; to which may be added, that sometimes the primary action altogether subsides on the appearance of the secondary sympathetic affection, of which local diseases afford numerous illustrations. The history of the case, however, if it be examined with the requisite labour, and laborious this examination often is, will generally enable us to detect the order

of derangement of the respective organs, for practical purposes, with sufficient accuracy.

Urethra, with Urinary and Genital Organs.

The sympathy evinced by the different portions of urethra with each other, are well shewn in the "Irritable Urethra," and especially where the part affected is its prostatic portion.

The disturbance excited by the urethra, in many cases, in the functions of the bladder, kidney, and testicle, are well known; but, as regards their degree, or their excitability, these sympathies are not reciprocal.

The testicle exhibits a very ready tendency to sympathize with the urethra, both in diseases of an acute and chronic form. This is exemplified—in hernia humoralis, in common inflammation; in chronic enlargements, and in hydrocele; all of which frequently occur from urethral irritation. The urethra, however, very rarely sympathizes with the testicle in accidents or diseases *primarily* impressed on that gland.

This absence of reciprocity is observable, though perhaps not in the same degree, in the sympathetic relations of the urethra with the bladder and kidney.

It is true that primary affections of the bladder and kidney do occasionally produce sympathetic manifestations in the urethra; as in stone, for example;

Yet this sympathy is by no means a necessary concomitant to affections of either of these organs; whereas there is no affection of the urethra which does not produce sympathetic irritability of the bladder in a greater or less degree; nor any which, if it be long continued, does not induce disordered actions, and ultimately disease, of the kidney also. Indeed, it is to the neglect of advice, founded on this sympathy, that many persons perish from disease of the urinary organs. The accommodation of the efforts of the bladder to the obstacles presented, by disease of the urethra, renders the approach of disorder insidious. The exhaustion of this power of accommodation gives rise to irritability and disease, both of the bladder and kidney, too often

beyond our power of correction. The greatest power of exciting sympathetic action, then, as regards the urinary and genital organs, resides in the urethra, and seems to result from its complexity of functional relations. This power, however, seems placed where it would be likely to be most beneficial; that is, where external influences are most likely to produce noxious impressions; and, as regards the testicle, is obviously directly preservative.

Had the sympathy been reciprocal, many variations in the state of excitement, of the kidney, bladder, and testicle, which, constituted as the body is, seem inseparable from their functions, and which now prove fugitive and of no import; would, in exciting the urethra, have been (by the reacting sympathy of this part) magnified into serious disturbances.

The different sympathy evinced by the urethra, in admitting any foreign body from without, and in giving exit to any thing from within, appears to exemplify the preservative effect of that order, in its sympathetic susceptibility, which nature has

established. Considerable portions of rough gravel often pass outwards without the slightest inconvenience: the introduction of the softest bougie, with all proper preparation, frequently produces, as every one knows, considerable excitement, and generally at first some evidence of disturbance.

The extensive sympathies of the urinary and genital organs with the nervous system, and with the whole of the chylopoietic viscera, are well known, and may be gathered from almost any treatise on their diseases.

Uterus and Mammary Glands.

The sympathies between these parts, with reference to my present object, require little remark; as they are so familiarly exemplified in parturition.

They are, however, developed in many morbid affections, and often present themselves in conjunction with very curious and interesting complications, well known by those engaged in the practice of midwifery, and the diseases of women; and which often unfold the extensive sympathies of the

uterus with other organs, as well as with those with which its sympathy is more commonly manifested. Examples, however, occasionally occur, in the practice of surgery, of the kind to which I am alluding.

Not long ago, I was consulted by a female, 31 years of age, with regard to an abdominal tumor, which was accompanied by circumstances, which, although not altogether unprecedented, I apprehend to have been rare. She consulted me in June last, and stated that she had been married about ten years, and had borne one child, about eight years since. She complained of sickness in the morning, and had on one occasion vomited; but nothing more than a fluid, which she described to be like water. She began to perceive an increase in her size in September 1834; and this increase appeared to progress gradually until Christmas, when she had attained her present magnitude; since which, she is positive there has been no augmentation. She sometimes feels a motion; but, to use her own phrase, "like a little bud." The

catamenia are regular as to time, but scanty and pale. Examination per vaginam detects nothing peculiar: the os uteri is felt distinctly about as far as the finger will reach. It is now ten months since she first perceived the enlargement. The breasts are painful, and fuller than is usual with her; a symptom which she observed from the commencement of the abdominal enlargement. There is a little fluid oozes from each nipple: it is like poor milk, blueish and semitransparent. I obtained, by means of a cupping glass, a very small quantity, which, treated by nitric acid, threw down a considerable quantity of albumen. Examination of the abdomen detects a considerable tumor, apparently higher than the pregnant uterus, the limits of which appear ill defined. It appears to emerge from the right hypochondrium, and to be connected with the liver. She distinctly states, however, that the swelling began low down on the left side. She has some pain in her loins and head, and her feet swell occasionally. This case appears to me to involve considerations of interest; but they are

foreign to my present object, and would lead me to an inconvenient digression. This woman, whom I saw only three weeks since, told me that, when she left me, she consulted a medical gentleman in her own neighbourhood, and that the whole of her ailments, the tumor inclusive, subsided on her bowels being much purged. On examination, I find that the liver feels full; but there is no abdominal tumor.

This shews again the extensive sympathies of the uterus; but these are so familiar, that I avoid swelling the argument by an unnecessarily large enumeration of them.

CHAPTER IV.

INTERMEDIATE SYMPATHY.

ALTHOUGH considerations of structure or function present convenient bases for arranging *many* of the most important sympathies, yet there are some which appear to require, for remembrance and facility of reference, if for no more important objects, other divisions ; and a very useful one may, I think, be formed under the term of “Intermediate Sympathy.”

Stomach and Lungs.

It appears that the sympathy of these organs cannot be advantageously referred either to identity of structure, or analogy of function, although a mucous membrane is found in both cases.

The sympathy between them is illustrated in those coughs, with increase of bronchial secretion, which are known, even popularly, to depend on stomachic irritation, and for which emetics and abstinence constitute the best and most certain relief. The sympathy is also demonstrated in those disorders of the respiratory organs which simulate phthisis so strongly, and which are relieved by measures directed solely to the digestive organs. Of these I have seen examples. I have also seen them where no such predisposition could be detected, exasperated into a genuine and fatal phthisis. Between the stomach and lungs there is certainly contiguity of surface, combined with analogy of structure; and it is very possible that all the relations, anatomical and physiological, may contribute to the excitability of the sympathy in question. When, however, we regard the very marked sympathy which the stomach and lungs both have with the skin, and the latter with that involution of it which covers the throat and fauces, and when we connect with this, the invariable affection of the

skin whenever the stomach and lungs sympathize with each other,—I think we shall be inclined to consider the intermediate affection of the cutaneous surface as the more *usual* channel through which the active sympathy manifested by the stomach and lungs is commonly developed. The direct sympathy of these parts is nevertheless, in some persons, very apparent, both in health and disease ; but it is the exception ; and it is not my present object to give a complete account of the subject. The first impression of any one will be, that, which refers the sympathy of these parts to contiguity, continuity or community of structure. So was it mine ; but more extended considerations have induced me to relinquish this opinion : but there is no space nor occasion for the argument here ; the only material thing being the fact of the sympathy between the parts, which is well known, and demonstrable in asthma and many other disorders.

It has occurred to me, to witness several cases illustrative of this sympathy ; and, although it is now so well established, I

will just allude to the case of a young lady, who had some very alarming symptoms referred to her respiratory organs, and which were not the less so, from the circumstance of her father having died of phthisis. She had had medical advice; but, getting no better, her friends determined on consulting a surgeon, and they brought her to me. The expectoration was very copious, and for the most part mucous; but it was intermixed with a matter evidently puriform. Her stomach and bowels were much disturbed, and the secretions were very unhealthy. I told her that I had no faith in medicine doing her any good, until she had a better tongue, and her bowels were more regular; but that, such improvement taking place, then medicine might be beneficial. However, when the secretions became improved, pain ceased, and the expectoration nearly subsided; and, there being no other symptom, but a very slight cough, I recommended her to continue her diet, to avoid taking medicine, except such as might be necessary to ensure regular actions of the bowels,

and to go into the country. I recommended the Isle of Wight ; but it happening to be more convenient for her to go some 100 miles north, I consented, on condition that, should there be any recurrence of her pulmonary symptoms, she should return. In a very few weeks she got perfectly well ; and, I have reason to believe, remains so at the present time. The foregoing occurrences happened some years ago. I could mention many similar cases which have come to my knowledge ; but I regard it as unnecessary.

Liver and Lungs.

A marked sympathy is often exhibited between these viscera ; and although it takes place in various ways, yet, perhaps, as often as any, through the medium of the diaphragm ; and also through the head, stomach, and skin. Sometimes either through the quantity of blood, or its quality, or from other causes, the sympathy occurs in a very direct manner.

It is not often we see the lungs affected

without more or less derangement of the liver; nor the liver materially disordered without oppression of the respiratory organs. Their mechanical relations exert considerable influence in exciting a mutual sympathetic recognition of disturbance.

The cases exemplifying this sympathy are I believe common. I know a gentleman who has phthisis in his family, and to which he appears to have some predisposition himself; having been at one time much subject to attacks of dyspnoea, with pain and cough. These, however, are always very evidently excited under either the remote or proximate influence of disorder of the digestive organs, the liver generally being the primary offender. His relief by biliary discharges is uniform. I recollect visiting him once when he was labouring under an attack of more than usual severity; and when, although he was in all respects better, his cough was still very troublesome to him, and a source of anxiety to his medical attendants. He took several forms of medicine, as sudorifics, antimony, calomel, and opium, with-

out effect. His cough, however, was instantly relieved, and his nights, which had been nearly sleepless, rendered good, on procuring copious biliary secretions, by a few doses of calomel with the extract of colocynth.

Diseases of the lungs and liver sometimes, as is well known, extend to each other through the diaphragm. I recollect a poor boy, whose case was an interesting example of this. He applied at the Dispensary with a large abscess in the right side, evidently in connexion with a diseased liver. It had existed several months; and he was so reduced in strength, that I could hold out no hope to his parents as to his recovery. Nevertheless, he improved so much under treatment directed to the improvement of his general health, and to the prevention of any confinement of matter, that I began to think he might possibly get well. The last time I saw him, I observed that he had become worse: his countenance looked contracted; and his mother said that he had coughed up matter. The poor fellow died shortly after;

examination discovered an immense abscess of the liver, communicating with a considerable cavity in the right lung. I do not, however, mean to represent this, more than other sympathies, as constant: for I recollect, about the same time, the case of a man, in whom the discharge from an abscess, connected with a much diseased liver, was more like a decoction of oak bark than any thing to which I can compare it; but he scarcely manifested any distress in his respiration.

Stomach and Kidney.

The sympathy between the stomach and kidney seems to be referrible, ordinarily, to the intermediate link which the skin forms between the respective organs. As an emunctory, the kidney and bowels have a functional relation, which is seen in very active operation, in many cases of deficient action of the bowels, in the exceedingly loaded condition of the urinary secretion: and with the stomach, the sympathy of the kidney, as well as that of the bladder,

is sometimes so rapid and remarkable, as scarcely to suggest any intermediate agency. It cannot indeed be doubted, that direct sympathy may take place between any two organs in the body; but the practical object is to ascertain the road by which this sympathy *ordinarily* travels; for analogy would rather suggest, that sympathy may seldom, if ever, be left to depend on a single connection, unless we regard that as such, which is established in the communication of all parts of the nervous system with each other. But I say again, the *usual* mode in which a given sympathy acts, is the first and most material object to discover; and which constitutes the most useful reference for us, in a profession where so much is often required under circumstances very unfavorable for reflection.

It appears to me, then, that the sympathy of the stomach and kidney usually takes place through the skin; since I know of no sympathy between them, in which the skin does not participate; although the manifestation afforded by the extreme links of this chain—that is, stomach and kidney—

is generally so prominent, as to excite little attention to the intermediate connexion. In sudden affections of the kidney from stimuli, as well as other matters, taken into the stomach, the individual scarcely ever fails to recognize concomitant sensations of the skin, when his attention has been directed to it. In severe nephritic disorders, the affection of the stomach is so prominent, as to excite little observation of the skin; which, however, will always be found sympathizing in the most active manner.

Stomach and Heart.

The sympathy between these organs is frequently, I think, direct; and is very strikingly shewn in palpitations and other irregularities of the heart, clearly traceable to stomachic irritation; but, at the same time, I am inclined to think, that, in general, the brain becomes intermediately affected; with which organ both heart and stomach have so vivacious a sympathy. Examples of this sympathy need not be quoted. The

relation between the brain and stomach is known to every one; and the uniform participation evinced by the heart in the excitement, or depression, of the brain, is equally familiar; and as we almost never see a sympathy taking place between the stomach and the heart, even in the ordinary effect of a common repast, without the brain affording some evidence of its participation in the excitement or depression, as the case may be,—so it appears to me more convenient, if not more correct, to place it in the catalogue of Intermediate Sympathies.

Stomach and Testicle.

I regard the sympathy between the stomach and testicle as one of intermediate agency; the agent being the nervous system, or the constitution generally, which sympathizes vivaciously, with both organs.

I prefer this view to that suggested by the rapidity of its action, and which would regard the sympathy between these organs as direct. First, because sickness of the stomach and various affections of the tes-

ticle occur singly without developing this sympathy.

Affections of the stomach affect the constitution; even yet the sympathy is not developed.

Now, wherever the constitution partakes in any marked degree with disturbance of the testicle, the stomach invariably sympathizes; but then it does so no more with the testicle than it does with other parts, where the primary and injurious impression is sudden, and where it is applied to parts capable of disturbing the constitution.

Injuries to the brain, blows on the abdomen, accidents to joints, lacerations of muscle, severe blows in different individuals, produce sickness. It is true that sickness, though an extremely common consequence of such accidents, does not invariably succeed to, or accompany, them: but this exception is equally true as regards the testicle; for many have suffered blows on the testicle, and some have even nearly fainted without any accompanying sickness having been produced.

Why the sympathy is not reciprocal,

that is, why the stomach does not equally affect the testicle, is of course a separate question, in no way *necessarily* connected with that question which considers the mode by which the testicle affects it. Other examples of this want of reciprocity occur, equally inexplicable; as the sympathy between the stomach and the uterus. The stomach and testicle, then, have a power of affecting a common centre, the nervous system; and this may be heightened by their mutual power of affecting the mind; the one by the medium of the passions, and the other, by a mode which will be adverted to in the sequel.

*The Sympathy between the Stomach and
Uterus,*

Seems very much of the same nature as the sympathy last mentioned; for, although the sympathy is very rapid, it still seems hardly ever to be excited but through a general affection of the nervous system.

As a whole, the uterus in the female appears to have a much more active sym-

pathy than the testicle in the male subject. The most interesting examples of the sympathy of the stomach with the uterus occur, perhaps, during utero-gestation, and are not only ascribed with confidence to a direct sympathy, but regarded as an unavoidable occurrence. As my experience of such cases must be very limited, when compared to that of gentlemen engaged in the practice of midwifery, I wish to be understood as speaking cautiously, and only referring to my own impressions. I will therefore only observe, that, engaged all my professional life in public employments, which have annually brought me in contact with many hundreds of charity patients, I have seen a great many women during the period of utero-gestation ; and, with regard to the distressing state of stomach, which in too many accompanies that process, I have never seen it without very marked disturbance of the nervous system. Utero-gestation itself, indeed, commonly renders the nervous system unusually alive to impressions of all sorts ; and this is frequently increased by absurd notions with regard to

diet, which women often entertain, and which leads to a state of repletion, at the very time, of all others, when the avoidance of extremes of any kind is most desirable. The nervous system thus (partly, perhaps, as the result of the excitement natural to uterogestation, or still more from that derivable from avoidable sources) becomes in a state highly favourable to the development of any sympathy, which, as in other cases, will occur between organs most disposed to sympathize with each other, or most closely so connected with a common centre. The latter fact applies with especial force to the connexion of the stomach and uterus with the whole nervous system; and the whole subject of the sympathy of these organs appears to me to open a very interesting field for investigation; but this must be done in a work devoted professedly to individual sympathies, and should, I think, be attempted by some one engaged in the practice of midwifery.

Uterus and Kidney

Appears generally as an intermediate sympathy, sometimes through the bladder, but more usually by the effect which the uterus produces on the nervous system; through which, either directly, or by the intermediate agency of the skin, the kidney is so readily excited. Accordingly, in most cases of uterine disturbance, we find simultaneous irregularities in the function of the kidney: that organ at one time pouring forth increased quantities of limpid fluid; at others, affording a more scanty excretion of thick, turbid, or loaded urine.

Of Anomalous Sympathies.

The chief interest which, in the present state of our knowledge, is attached to the subjects referred to the heading of this chapter, arises from the evidence which the phenomena afford—1st. that however nature may usually have regulated the ordinary sympathetic manifestations of the different organs in the body; yet that, under pe-

cular circumstances, any two parts, may sympathize with each other. 2ndly. That any explanation of the sympathies which has hitherto been attempted, except that which refers them generally to that connexion, of all parts, established in the nervous system, is inadequate to the explanation of the phenomena; and, thirdly, that in the present state of our knowledge, any arrangement of the sympathies must be purely artificial; and though very useful, perhaps, in pointing out which the rule, and which the exception; and as combining with the phenomena, certain important relations which exist in the parts between which they occur; still, that all this is only to be regarded as an arrangement founded on the usual order of the phenomena, and not as on any ascertained law, regulating their production. That though an arrangement may, for practical purposes, be a convenient approximation to the truth, yet that, in its application to disease, it is to be regarded as subject to exceptions, which may be distant in their intervals, and few in their number, in the experience of one man, whilst they

may occur frequently in the experience of another. Having premised so far, I will, before I consider the brain, give a few illustrations of the exceptions to which I refer.

Any one organ, in a particular case, may take the lead, in its sympathetic relations, with all others, whether brain, thoracic or abdominal viscera, urinary or genital organs, or any other structure; and, accordingly, we find people with corresponding differences in their susceptibilities; differences as to their weak parts, as it is sometimes expressed. I have endeavoured to illustrate the ordinary sympathetic tendencies in many important organs already, as that of the uterus with the stomach, for example; but there are many women in whom the sympathy of the uterus with the brain is much more remarkable; and yet in whom there is very little, if any, affection of the stomach. So with the stomach: *ordinarily*, nothing perhaps is so common, as the sympathy of the head when the stomach is primarily disordered; yet I have known persons who scarcely knew what head-ache

was, but whose stomachs were often disordered nevertheless ; derangements of that organ affecting the liver first, in one, the bowels in another, the kidney in a third ; and similiar varieties may be remarked in the sympathies of other organs in different individuals. No one cause is so productive in the development of anomalous sympathies, as disorder of the digestive organs ; the interminable variety of sensation arising from this source alone, would, in a lecture expressly on sympathy, form a curious and lengthy catalogue. Some kinds of food, wholesome to the majority, prove very injurious to particular persons. Good potatoes, for example, are in general very wholesome and nutritious ; yet there are persons who cannot eat them. I know many persons who are obliged to avoid this root ; and a learned physician of this town told me he could never touch them.

Sympathies, sometimes of an unusual nature, result from disease. Mr. Hunter mentions the case of a lady who burnt her neck ; and whenever she afterwards drank warm liquids, she felt pain in the cicatrix.

I had a case of a young woman under my care, with a curious affection of the bladder, in whom, eating potatoes always produced a paroxysm of suffering. There is a man now in the Dispensary, in whom a remarkable sympathy is developed between the absorbent glands and the testicle. He had a cluster of enlarged absorbent glands down his neck, for which he was treated, first, by attention to his general health, and, subsequently, by mercury and iodine. The large tumor formed by these glands underwent no change from the remedies employed; at length he complained of uneasiness in his left testicle, which, on examination, proved to be considerably enlarged. He did not suffer much pain, nor was the testicle very tender. The glandular tumor in his neck now began to diminish very rapidly; and when it had nearly disappeared, the testicle began to subside also; and they had both nearly disappeared when I last saw him, which is about ten days ago.

*Of the Sympathy manifested by the
Countenance.*

I cannot refrain from observing, shortly, on that universal sympathy which is so often depicted in the countenance; and which, by the experienced or discriminating, is justly regarded as so important an indication; sometimes of the nature of the malady, but always of the impression it is making on the constitution.

Mr. Hunter attached great importance to this sympathy, and seems even to have thought that connexions might be traced between particular expressions, and particular diseases.

I am not aware that we have made much progress in the analysis of morbid expression; yet experience gives every one more or less power of judging of a patient, by the countenance; and we find ourselves sometimes doing it involuntarily, where the symptoms, in the abstract, rather contradict the hope, or despondency, which the expression of the features suggests to us.

The assistance, afforded by the expres-

sion of the countenance in the *diagnosis* of disease, seems best exemplified in diseases of the heart, lungs, and liver, and in the peculiar sallow, half-anxious countenance which accompanies malignant maladies.

But if the assistance supplied from this source be limited in regard to diagnosis, I scarcely know any malady in which, with a commonly discreet attention to concurrent circumstances, our *prognosis* is not materially assisted by it; and if a careful observation of all the circumstances shall have placed our minds in a balance, I am disposed to think that the prognosis may often be safely determined, by the manner and expression of the patient.

In some instances, we may even do more than this; for I have often, in common, no doubt, with most other surgeons, predicted recovery where the countenance has been propitious, under circumstances where the symptoms, abstractedly considered, would by no means have justified a favourable prognosis; and have, on the

other hand, foreseen failure where, the expression of the countenance excepted, the patient could not be said to have scarcely a bad symptom. Physicians have, from the earliest times, been aware of the importance attached to the expression of the face; nothing, however, impresses it more strongly than the practice of surgery; and especially the cases of patients who have either met with serious accidents or undergone severe operations. The alarm spoken of by Mr. Hunter, is frequently depicted strongly in the face of the patient; so is anxiety; so is a more modified degree of it, as manifested by hope; or by solicitude for recovery. The two former are usually, bad symptoms; the two latter may be regarded as favourable.

There is a state, after operations, sometimes, which is very peculiar and *uncomplaining*; but which is, in general, too sure a forerunner of sinking power. The patient's countenance is, in general, somewhat shrunk, and his eye is either inexpressive, or denotes a kind of latent anxiety. He complains of no pain; is not particularly

restless ; nay, sometimes will have some comfortable sleep ; at its commencement ; the pulse may afford no remarkable indication, nor does the wound always exhibit evidence of the real state of things. The state is, in fact, merely characterized by a certain indifference, a listlessness, a want of interest ; nevertheless, he is dying, which is too soon demonstrated. If such a patient recover, it is generally by the early administration of supporting measures.

Whatever tact is to be obtained in this way, can be acquired by observation alone. But, in addressing students, I would caution them from adopting a habit, in examining a patient's countenance, from which I have observed some distinguished men not to be exempt, and which is very unnecessary, whilst it is equally at variance with good tact, and good breeding. I allude to that determined gaze, that riveted look, and even, sometimes, that knitting of the eyebrow, which, either separately or conjointly, characterize the expression of the examiner. It is unnecessary, because the most careful observation of your patient's face is

perfectly compatible with the preservation of the composure of your own. It is bad tact, because it alarms some patients, and may induce others to put on a factitious cheerfulness. That it is bad breeding, requires no illustration.

CHAPTER V.

THE BRAIN.

THE ordinary manifestations of the cerebral sympathies, evince such universality of connexion, and such varieties in the mode of their development, that to place the brain in any particular class appeared to me objectionable; I have therefore preferred making the very few remarks I have to offer, with regard to it, in a distinct section.

Considered in the whole of its relations, the brain presents sympathies far more numerous and complicated than any organ of the body. Presiding over the whole man, moral as well as physical, cognizable every where, yet explicable no where, its ubiqui-

tous influence is equalled only by the mystery in which it is involved ; but we can no more be said *really* to understand the most simple fact in the whole history of sympathy, than we can the most complicated cerebral phenomenon. A careful observation of the sympathetic manifestations of the brain, and the more obvious connexions of which they appear to afford evidence, seems not only to afford the best chance of increasing our knowledge of the subject, but the most likely means of supplying that kind of information, which our finite capacities enable us to apply to useful purposes.

As a common centre, to which intelligence of every impression is conveyed, the brain holds direct sympathy with every molecule in the body ; and its obvious and visible connexion, by the arrangement of the nervous system, with all parts, affords the most striking suggestion of that sympathy and connexion of all parts with the brain, and with each other, which an examination of the phenomena of health and disease alike combine so emphatically to

establish. Viewed as the most magnificent portal of the body, it exhibits, in its own sympathies, and in those which it confers on other parts; a range of power, a multiplication of relation, an extent of influence, a complication of faculty and function, which render even a moderate contemplation of it, productive of peculiar emotion; and which, perhaps, more than any one object in nature, presents, in one single creation, the plainest proof, the most intelligible evidence, as well as the most sublime example, to the natural theologian.

Viewed in its physical relations, the brain sympathizes, ordinarily, more readily with some organs than with others; these organs being chiefly those which, like itself, are, either in a moral or physical sense, especially amenable to external impressions; and which, as such, are also portals to the body; as, for example, the chylopoietic viscera, skin, and heart.

I need not point out the sympathies of the brain with individual organs.

The phenomena of particular fevers, the influence of the brain in the type of all, and

the phenomena following its injuries, sufficiently attest the number and complexity of its sympathetic relations. The recognition of corporeal disturbances is not usually manifested by cerebral excitement, until the nervous system generally, participates in the disordering impression ; unless from influences, moral or physical, derived from without, and applied either directly to the brain, or through the media of the external senses. The external senses seem placed, as it were, intermediately between the corporeal or nervous, and the moral or perceptive, functions of the organ. They seem to have certain sympathies with the body, with the mind, and with each other. These sympathies alone, would furnish a very wide field of enquiry. I can only here mention a few familiar facts, in connexion with this interesting subject.

Examples of the Sympathies of the External Senses with the Body.

Many odours produce head-ache ; so do severe impressions on the ear ; so, occasionally, does nausea.

The reciprocal sympathy between the eye and the brain, in too vivid impressions on the one, or excited states of the other, is familiar. Touch will convey feelings of disgust; even nausea; or a sense of shuddering, in its origin certainly corporeal. We derive some kind of pleasure too, from the same source, in the examination of objects, which are smooth or symmetrical. Smell and taste seem to guard the stomach and lungs especially; and to examine impressions about to be submitted to these organs. Animals neither eat that which the taste or smell rejects, nor do they willingly breathe an air impregnated with (to them) an ungrateful odour.

A few examples will illustrate the

Sympathy of the External Senses with each other.

The sense of taste is much affected by those of smelling and sight. Any disordered impression on the eye, or nose, generally affects the power of taste; and we either find the sense diminished, or lose

altogether the power of distinguishing flavour. The fact has been often exemplified artificially, by shutting the eye and closing the nostril, when the best judge of wine will seldom know the difference between port and sherry, or any two of similar strength with which you may present him. Closing the eye only, has some little effect; as I once witnessed in the person of a popular comedian. At first, he guessed rightly the wine which was handed him; but, from his hesitation, it was evidently a matter of difficulty. After the trial had been repeated, he said that he could discriminate no longer, that it would be altogether a matter of accident; and so the experiment was discontinued. The practice of giving sternutatories in affections of the eye, seems to have originated in the observation of the sympathy between the nose and eye. This sympathy, as well as the lachrymation consequent on stimulants applied to the gustatory sense, as in mustard or pepper, seems more referrible to the functional sympathies of the mucous surfaces to which they are applied, than to the sensual properties

of the respective organs ; yet this does not, practically, make much difference ; as the surfaces in question, and the senses to which they belong, sympathize with each other.

We constantly find touch and vision acting together, in examination of surfaces ; as if one sense were examining the nature, of impressions, conveyed by the other. The eye and ear exhibit many sympathetic manifestations.

It is recorded (but where, I now forget), that a blind man, being asked his idea of scarlet, said that it was like the sound of a trumpet ; and that a deaf man, being asked his idea of a trumpet, said it was like scarlet. The force, however, of the coincidence will entirely depend on the circumstances ; as connected with, or independent of, previous association of the sound and colour in question. Mr. Maugham, the intelligent lecturer on chemistry, at that interesting establishment, the " National Gallery of Science," told me, a few days since, that he knew a distinguished blind musician, who was accustomed to express his idea of

scarlet by comparing it to the sound of a trumpet.

The increased accuracy of touch, in certain cases of blindness, is well known ; as is the fact of its becoming, in some instances, so refined, as to enable the individual to distinguish colours of surfaces by this sense alone. This is not only a very interesting fact, as regards the power conferred on the sense of touch, but it appears further important, as suggesting the possibility, that differences of colour, may depend on some difference of arrangement, in the molecules of their respective surfaces : a circumstance, as it appears to me, not at all inconsistent with the ascertained facts of electro-chemical science.

The connexion of the external senses, is sometimes evinced, by the mode which we adopt, when we desire to use any one with unusual accuracy. Sometimes we use one sense to aid another ; sometimes we endeavour to concentrate our power on that which is in operation. We carry this occasionally so far, as to shut one eye when we wish to be absolutely correct, as in taking aim ; or

in examining minute objects, though this is not constant ; some few persons keeping both eyes open. An association of this kind, exemplified in different modes in different persons, is observable between the eye and the ear. If we wish to hear impressions of great delicacy ; when, in fact, the object is to ascertain whether there be any sound at all, we usually close the eye, or at least so dispose it, that the sense is evidently shut. But if the object be to discriminate between a multitude of sounds, as at a concert to judge of a particular instrument, where all are audible, we pursue a different course. The association of the eye with distance appears to render it useful in directing the ear to the particular spot whence the sound we wish to discriminate proceeds ; for, whether this be or be not the reason, we certainly often place the eye exactly as when we wish to render its impressions unusually accurate or refined ; and either listen with one eye closed, or contract the eyebrow as in frowning. Sometimes we first look towards the spot whence the sound proceeds, and then turn our ear in that direction.

The reader will perceive how easy it would be to amplify on such a subject ; but as my only object is to impress the connexion of all parts with each other, the illustrations alluded to will be sufficient ; and we may proceed to speak of the sympathy of the

External Senses with the Mind.

The senses of smell, taste, and touch, for the most part, may be said, in their sympathetic manifestations, to affect the body ; but it is certainly true, that, by association of ideas, they also occasionally affect the mind. When impressions are received by these senses, to which they have long been strangers, we seldom fail to recognize a resuscitation of those sensations, whether of pain or pleasure, by which they were formerly accompanied. The mind is thus frequently led to very vivid recollections of circumstances, of which it seemed to have lost the impression. The preference to particular objects of these senses, such as certain flowers, or fruits, which have been

connected with our early associations, affords another illustration of the same thing.

The eye and the ear differ from the senses just referred to, in that, whilst both sight and hearing present occasional sympathetic associations with the body, as those already mentioned, besides many which might be added, as in affections of the abdominal viscera,—yet they manifest these relations much more strikingly with the mind.

The sight of a distressing scene produces a sympathy obviously mental: so is that felt in the recognition of beauty, either in an individual object, or in the grouping of a fine prospect. Many impressions on the ear produce mental emotion; as the cry of distress, or of bodily suffering. Pleasing impressions of a low degree are exemplified in the sleep produced by moderate, continued, and monotonous impressions on that organ; this applies to most people; but it is particularly well exemplified in children.

Few things, indeed, pleasingly affect the ear, unless they excite some action which is mental.

Pleasurable sensations, whilst they best demonstrate the beneficence of the arrangement, appear also most happily to illustrate the sympathy of these senses with mind and body. The gratification derived from the contemplation of natural scenery; that sensation of pleasure and peace which it diffuses over the stormy elements, which, in most minds, are in too active and constant operation; the manner in which these sensations are heightened or sustained by the hum of various insects, in their multiform vocations, the song of birds, or by the less exciting varieties of human melody or harmony; the delightful sensations of health, purity, and enjoyment, from the breeze fraught with the odour of healthy vegetation, or the perfume of flowers,—severally illustrate these sympathies.

Darkness and silence, however, excite a mental sympathy, and produce, through the imagination, very vivid impressions. There is something awful in a forest of a dark night; and the silence of winter, in broad day, is often productive of peculiar sensations. These may be again heightened

by reflection ; such as that this sleep of nature is only apparent, that the earth is still teeming with millions of creative processes, which, by and by, the sun will burst forth into visible existence. That the trees, which now appear so shorn and wretched, have their circulation still going on, that Nature is still active, amidst a silence, which (though it may be less pleasing than when she is vocal with animal life, and clothed with flowers and verdure) still infuses through us a high degree of pleasurable feeling, and wraps it in the sublime. When we think deeply, solitude and silence, if not necessary, at least very much facilitate concentration of intellectual power ; and closing the eyes seems to assist the power of reflection. Even the pleasures of taste, when not fatigued by excess, or perverted by sensuality, impress one's consciousness with evidence of the sympathy of this sense with mind and body. The subject might be pursued at almost any length ; but the material fact is, that the senses have sympathy with the body, with the mind, and with each other. From the

links thus formed, we are naturally led to contemplate the sympathy between the mind and body. Notwithstanding our profound ignorance on this subject, we cannot but regard it, on reflection, as one of absorbing interest ; and I cannot but think, that, if, instead of the fruitless labour of speculating on their mode of connexion, we were to confine our observations to the phenomena which this connexion unfolds, we should find our labour far from unprofitable.

The sympathy of the mind with the body, like that between corporeal structures, seems limited ; but, by very different, and, in some respects, opposite, considerations. The sympathies of the body appear to evince increased susceptibility under the influence of disease, and to be more easily excited in states of declining power. The reverse of this happens with regard to the mind.

Its sympathy becomes limited by other considerations, and frequently in a very marked manner. Having suffered for a long time in common with the body, the

mind often seems to recognize its approaching separation ; and that, as her corporeal connexions are about to cease, so her corporeal functions are no longer required. The more animal portion, indeed, seems to decline with the body, the passions fade. If any thing remain, it is either what appears least earthly, as the affections,—or most linked with reason, as hope.

Reason holds little of this sympathy : she often evinces her supremacy, in the isolation of her proper function ; in exerting her power with a force, and even with a serenity, unusual in health ; and, amidst the throes of a perishing body, seems to repudiate her connexion with organized matter ; suggesting what Cicero so finely expresses, —“ *Est enim animus celestis exaltissimo domicilio depressus, et quasi demersus in terram, locum, divinæ naturæ æternitatisque, contrarium.*”

Without entering into any metaphysical argument, it is easy to recognize, in the mind, two orders of functions. The one, that assemblage of faculties which we call Reason ; the other, that association of feel-

ings and propensities constituting the Passions. The former may be regarded as the distinguishing attribute of our species ; the latter we enjoy in common with other animals. Love, joy, grief, anger, are the common possessions of both ; reflection, comparison, the resultant of these, judgment, appear to be peculiar to man.

Like every thing else in nature, the transition from one being, to another class or mode of existence, appears gradual. To say where Reason begins and Instinct ends, is not merely difficult, but obviously impossible. The broader distinctions between them are nevertheless sufficiently apparent.

In the moral constitution of man, in the extended sense of the term, Reason and the Passions are, in some sort antagonist powers, without that happy adjustment of equilibrium, of which we recognize a physical type in some corporeal structures. On the contrary, these principles, call them what you will, are generally in a state of warfare, seldom ended but by the death or decline of one of the belligerents, and often not until that of the individual in

whom they operate. Sometimes, indeed, they act in concert—a rare moment of moral excellence. The former is the rule; the concurrent action the exception. But if it be true that we find individual existences constantly shaded off into each other, it would seem that reason and the passions, principles so different, should not be, as it were, abruptly conjoined. There appear to me to exist, properties which belong exclusively to neither, yet are allied to both; and that hope, “the sick man’s friend,” is at least one of these. As a feeling to which we cling with an instinctive tenacity, and which acts under the most depressing influences, without our seeing or thinking of the grounds on which it does so, it seems allied to the passions: as a principle which carries our views into futurity, and leads to an examination of the grounds on which they are based, it seems distinctly connected with reason. Despair seems little else than the absence of hope, expectation little more than hope, examined and approved by Reason. Now, that reason and the passions sympathize with each other, could be

easily exemplified ; but our present object is more closely followed, in enquiring how they sympathize with the body ; and by examining whether (although they both sympathize with the whole body) there may not be certain organs with which this sympathy is usually more strikingly exemplified.

Now, although both reason and the passions are capable of affecting the whole system, it seems very evident that they have partialities in their sympathies. The passions sympathize *chiefly* with the heart, lungs, diaphragm, liver, and, perhaps, kidney ; all of them organs presenting no material difference in man and other animals ; all, either entirely independent of volition, or having, as in the case of the diaphragm, the same modified connexion with it, in both cases. The heart is especially affected by the passions—by joy, grief, and anger, for example ; so are the diaphragm and lungs ; so is the liver by melancholy impressions ; and the kidney and bladder, *occasionally*, by sudden impressions of any kind*. The alimentary canal is also affected

* To these of course might be added the generative organs.

by the passions; and its upper portion, perhaps, more particularly, but in a different way; neither so frequently, so strikingly in degree, nor so directly in manner. Many of the passions are in daily operation, without producing any effect on the stomach; and even when the passions do affect the stomach in the marked way which is sometimes observable, they seldom do it otherwise than intermediately, through some other organ, as the heart or nervous system; as in grief, or excessive joy. Sometimes boys, when about to leave school, can eat very little on the last day, for joy; but the whole system is in a state of excitement. An opposite state, attended with the same deficiency of appetite, occurs in intense grief; the stomach is affected, but the whole system is depressed. In fact, so modified is the sympathy of the stomach with the passions, that they seldom appear to affect it, unless the excitement be excessive, or their operation very suddenly developed, which, producing either a disturbed state of the circulation, or of the nervous system, or both, does not affect the argument.

Whilst the sympathy, then, of the passions with the stomach is sometimes modified in degree, or intermediate in manner, Reason seems to have a more particular sympathy with that organ than any other, the brain only excepted. The stomach is considerably, and in a very important sense, under the influence of the will. Those organs more immediately connected with the passions, are out of its dominion. The consideration of the stomach in man, suggests many peculiarities in his physical composition, scarcely less striking than those which reason affords with regard to his moral constitution. Man can digest almost every kind of food, and *this not in the way of an exception, nor merely in exertion of that wonderful power of accommodation with which animals are endowed, but from a power or function which, an examination of the whole of the digestive apparatus, seems to demonstrate as ordinary and original.* Even *this* capacity, so viewed, is a rare circumstance: I am not prepared to say that it is unique.

I know of no animal where the anatomo-

mical characters so *strikingly* demonstrate the omnivorous habit of the individual, nor in whom the teeth so *exactly* combine the powers necessary to the division of both kinds of aliment.

Other animals, which are omnivorous, so far as I know, always evince predilections for one class of food; which we do not observe in man. This might be variously exemplified; but we can scarcely select a more omnivorous animal than a pig, yet he evinces very decided predilections.

But if these views be questioned, there is still a much more interesting peculiarity to be noticed. Although the human stomach has the power of assimilating various kinds of food, it can digest comparatively but few, without previous preparation; it shrinks from the attempt, and this at once brings the functions of the stomach in connexion with reason. The manners of the most primitive people do not contradict this fact; the culinary art of civilized life afford a curious exemplification of it. Further, the excitement of appetite by every sustained operation of the reasoning faculty,

—the proportion observable in their intensities, where the extreme of exertion is avoided;—the thin, spare bodies, even to leanness, of many whose intellectual labours are great, but who take a great deal of food with little or no exercise, and in whom, even for years, no failure of assimilating power is observable;—the instinctive feeling of vigour, the clear perception, the facility in the arrangement of ideas, according to the powers of the individual, which accompany moderate exertion, or otherwise induced tranquil conditions of the stomach; compared with, the inaptitude for exertion, the confusion of ideas—in a word, the intellectual inefficiency so frequently resulting from a loaded, fatigued, irritated, or otherwise disordered condition of the organ,—are so many circumstances which seem to demonstrate a striking sympathy between the stomach and the rational faculty; and not discernably, in the majority of cases, by other than a direct agency. Horace, who was an acute observer, after saying how pale people sometimes rise from the loaded table,

—————“ Vides, ut pallidus omnis,
Cæna desurgat dubia ?”—————

proceeds to remark how the mind, also, subsequently becomes affected—

————— quin corpus onustum,
Hesternis vitiis animum quoque prægravat una,
Atque adfigit humo, divinæ particulam auræ.

For my part, I cannot help thinking that some light is thrown on the subject by the moral argument; I feel a difficulty in conceiving that an organ so much connected with the practice of self-denial, one of the highest faculties of our reason, has this connexion without some object. I mention this point, not as merely arising naturally from pursuing the consideration of the connexion of different principles, or existences with each other; but as tending to enforce the scientific or professional part of the argument; for when we observe corporeal functions thus associated with our highest mental faculties, how can we suppose that, under any circumstances, these corporeal functions should become insulated from each other.

When self-denial is altogether laid aside, with regard to the stomach, the present gratification, as contrasted with the future inconvenience or suffering, is, to my mind, very typical of what happens with regard to its exercise or abandonment in higher matters; whilst the small degree of self-denial required, when it is habitually exercised, as contrasted with that, rendered in time necessary by indulgence, is precisely what happens with regard to the government, or rather misgovernment, of more serious propensities.

Again; so far as we are capable of judging, mere animal purposes, either as regards the personal safety of the individual, or that beneficence which converts even our wants into sources of gratification, might have been answered by small modifications of the external senses. A very little observation of the œconomy or habits of animals, strikingly exemplifies this remark; but in the connexion which we trace between reason and the stomach, that organ in man, appears linked with his moral constitution.

How else the health, the comfort, the intellectual efficiency, in short, the virtue of temperance—how else the disturbed nerve, the vacillating decrepitude, the miserable wreck of intellectual power, the blasted moral perception, in fact, the vice, of intemperance?

There is nothing approaching this in animals left to their instincts. For what purpose, then, the arrangement which permits it in man?—If not moral, what is it?—If moral, why then rational, and the stomach *one* of the organs in connexion with its manifestation. It is not possible for me to pursue this subject in the prosecution of a design, wherein I am obliged to touch on points, many of which, if fully discussed, would singly occupy a small volume. My object has been to arrange some of the more important sympathies, so as to facilitate, if it do not invite your deeper consideration of them; and to impress on you, by means of the evidence thus supplied, that linking together of various functions into one harmonious whole, in which we perceive even

our highest faculties and feelings, brought into connexion with our physical nature. I hope thus to excite a closer observation of the phenomena of sympathy, by which alone we can expect to discover the laws of its operation. In all sciences, the most wonderful progress has been made by such enquiries; but whether we regard solid bodies or fluids, substances tangible or intangible, aëriform or gaseous; whether we consider matter in the aggregate, or in the most minute analysis at which we can arrive; whether we consider the subjects of chemistry, heat, light, electricity, in their intensely interesting relations to each other; whether we consider their operation on this globe, or the influence exerted by them, or similar principles, on those countless systems around us; whether we regard the astonishing progress which the human mind has made in the discovery of attraction, gravitation, and those laws which unfold so much of the physical relations of the heavenly bodies; whether, when visible, or when, as in the case of comets, immersed in the inconceivable depths of infinite space; I say,

whether we consider one or all of these things, or many others, suggested by an examination of any of the sciences,—we shall find that our information has been generally derived from the study of obvious phenomena ; that our knowledge of final, or, to speak more correctly, secondary causes, consists in the ascertainment of our profound ignorance : apparently an intellectual paradox, but strictly and literally true ; the knowledge of the extent of our ignorance is wrought out of the depths of human wisdom.

So with sympathy ; we cannot hope to arrive at a knowledge of its intrinsic nature ; but some of its more important laws, its usual channels of operation, even the indications of its salutary or destructive tendency, may probably be discovered ; and on so being, unfold to us new modes of enlarging and improving medical science, which, in the elevating nature of its various studies, yields to no branch of human knowledge ; whilst in its utility, if measured by its influence in relieving the worst of temporal afflictions, it is superior to every other.

I shall now endeavour to shew some of the important bearings which the sympathies maintain in the causation of diseases, and in guiding us to their successful management; and how, whilst they admit and explain the local, they enlarge the influence and demonstrate the superior importance, of what has been termed (and which, in the absence of a better phrase, may still be called) the constitutional treatment of them. How, in fact, by explaining the access of disease, they expand our powers of preventing or relieving it, and enforce the precept

Sperate Miseri, Cavete Felices.

CHAPTER VI.

· SYMPATHY CONSIDERED IN ITS APPLICATION TO THE HISTORY AND TREATMENT OF DISEASE.

HOWEVER interesting the sympathies of the body may be to the natural Theologian, as swelling the tide of evidence, every where afforded, of design and beneficence—however pleasing to the Philosopher, as unfolding another example of the beautiful harmony of nature—however they may induce the Anatomist to pause during his investigation of mechanical relations, to contemplate the machinery through which the complicated phenomena of the sympathies are developed; or the Physiologist, whilst he endeavours to add to whatever knowledge

he may have of any one function, some notion of its connexion with any other—still the object of the Surgeon is to examine if they throw any light on the treatment of disease.

However complicated those considerations, included in the survey which he takes of the bearings of the sympathies on each other; his ultimate object is single, to discover their influence in disease.

Discarding any attempt to theorize on the precise nature of the sympathies, not so much because it is less interesting, as because it is less useful, he keeps a vigilant eye on the phenomena they disclose, and knowing that, however far his science may be from perfection, its progress will be in exact proportion to his perception of the laws of nature; he endeavours to discover, through the sympathies, what the intentions of nature in diseases may be, and the mode by which she endeavours to fulfil them. If the study serve him not in this object, although a delightful pastime, he scarcely considers it any longer a legitimate object of pursuit; he rather reverts to those claims

on his attention which many other parts of science suggest to him, and which he knows the longest life is seldom sufficient to answer.

Now, it appears to me that a little reflexion will convince any one that the study of the sympathies of the body, instead of being barren of that interest which utility confers, is abundantly prolific, in the practical information it brings; it appears to establish many important facts; to assist us in understanding the causation of diseases; to improve our mode of attacking those over which we have already some control; and to enable us to cope with others which, without such assistance, defy our power.

Whether the reader may be induced to think thus, I know not, but I shall be perfectly satisfied if he will only give the subject a patient consideration.

The consideration of Sympathy establishes many facts.

I will briefly dismiss this point, by referring merely to the evidence already adduced, which is only a *very small part* of what might

have been brought forward, to illustrate that general consent of action in the whole body, which proves its unity; and the bearing which this necessarily must have on the constitutional, as opposed to the local, treatment of disease.

The study of Sympathy assists us in understanding the Causation of Diseases.

We should first consider how diseases happen; and as those to which I shall refer are the most prevailing, as well as the most dangerous, diseases of the climate in which we live, I trust, if the argument prove a little lengthy, the importance of the subject will procure me that indulgence which my imperfect mode of treating it might justly deny.

I suppose we shall not differ as to the following facts:—First, that the most important diseases of this country are scrophula, in its various forms (including phthisis), gout, rheumatism, inflammatory affections generally, and fevers of various type and severity. Secondly, that the *operation* of exciting causes is often as visible as their *nature* is beyond our perception.

Thirdly, that the exciting causes, generally consist of certain impressions, applied directly to the nervous system, or to the digestive organs; or to the skin, or the lungs, as happens with regard to atmospheric agencies. Fourthly, that disturbance of these parts (nervous system, digestive organs, skin, and lungs) generally takes place simultaneously; or, that to whichever one of them the injurious influence may have been first addressed, that some one of the others, and commonly all, very speedily manifest a greater or less participation in the disturbance.

I wish you to recollect, at the same time, that, in comparatively healthy states of body, the sympathies have a salutary tendency, and for the most part a salutary effect; such as the relief of disturbed bowels, by moderate spontaneous discharges of the offending matter, or by increase of secretion; or, in that increased secretion, which takes place from surfaces, under irritation by fever, cold, or otherwise; that in disordered conditions of the system the case is widely different; that in this case, the sympathies not only often

render occurrences (a catarrh, for example), ordinarily trivial, of a very important character; as in the sympathy of the bronchial ramifications with the skin; but that where there is pre-existing disease, say tuberculated lung, they will also frequently convert them into fatal maladies, as is shewn in the history of many cases of phthisis pulmonalis. Again, the sick head-ache which suspends the action of the stomach, through which the injurious impression has been received, is a salutary sympathy. Apoplexy and paralysis are often but diseased exemplifications of a similar connexion.

Thus far, I apprehend, I have stated no fact which is otherwise than well known.

Let us now proceed to consider the effects of a common cold. A man gets wet in his feet; or a blast of air blowing on a certain district of the skin shall have produced rigidity of the muscles beneath it, or in the vicinity; he is perhaps affected with sore throat, irritation, and dryness of the mouth and fauces; he goes to bed, takes some warm gruel, puts his feet in warm water, and gets well—or, taking no precau-

tion of this kind, or, those he does adopt not proving beneficial, he has cough; this continuing, he seeks advice, and is relieved: but he is not well; on the contrary, he continues ailing, his countenance shrinks, his distended nostrils, his emaciation, his frequent pulse, his expectoration, his profuse perspirations, announce serious indisposition; he becomes perhaps purged, hectic; he dies, in fact, of phthisis. Or this "catching of cold," which I have mentioned, is followed by a rigor, pain, sickness, constipation, inflammation of the bowels or peritonæum; the most active measures are employed, as bleeding, blistering, calomel and opium, enemata, warm bath, and so on; he is relieved; or, not being so, in forty-eight hours he may be a corpse; or, the cold may be followed, in another, by an ill-defined restlessness, and fidgetty condition; and he wakes, perhaps, in the morning, with a fit of gout — or, sometimes without, but more generally with some premonitory symptoms; he is laid up with acute rheumatism:—but here we are supposing that the exciting cause has been applied to the skin.

Now, the exciting cause may be applied to the stomach or lungs, or nervous system, and yet the phenomena may be identical.

The exciting causes may be, repletion in the lungs, as in some cases of phthisis; or disorder of the stomach, from the unwholesome quality, or excessive quantity of food; or depressing influences applied to the nervous system: yet, as I have said, the phenomena shall not be distinguishably different from those where the exciting cause had been applied to the skin.

We frequently hear people complain that they have caught cold, and they know not how; and that, in many of such cases, the disordering impression has, nevertheless, been derived from changes of temperature, acting primarily on the skin, cannot be doubted; since the climate in which we live, the large surface, and constant exposure, as well as the important connexions of this organ, render it much more under the influence of external impressions, than any other. The same remark applies, with some modification, to the lungs also.

Many circumstances, however, tend to

shew, that the disordering agency of cold, owes its impression, in many cases, to a previous morbid excitability of skin, derived from other sources—a question which we will examine as we proceed. In the mean time, it may be observed, that the phenomena of cold are not always produced by going from warm to a cold temperature, as is generally supposed. Sometimes passing from ordinary to high temperatures will give rise to the same phenomena.

I recollect a very marked case of catarrhal ophthalmia, so produced. It is difficult, in a climate like this, to trace a cold as a primary consequence of nervous depression; though it is common enough, as giving rise to the *excitability* to cold and other disorders. The most direct impression which it produces in common with cold, without its agency, is seen in some cases of gout and rheumatism. Disorder of the stomach, however, will very frequently produce “a cold” in all its varieties; and I knew a gentleman, who was so well aware of this, as regarded his own person, that when he has incautiously eaten any thing, which

former experience had shewn him to be unsafe, he has frequently predicted, that he should have a cold in the course of the evening. In his case, it appeared in the form of what is called a cold in the head: viz. sensations of fulness, heaviness, heat and dryness about the nose and fauces, and subsequent augmentation of secretion.

Now I wish you to consider how all this happens, if it be not by sympathy between the respective parts. But if the results of a given excitement be so different as those which I have described; I mean not as to their kind so much as to their degree; how does it happen? For, although the idiosyncrasy of different individuals would explain some cases, yet the different results, which I have mentioned, may have occurred in the same individual; wherefore, supposing the exciting causes to be alike, the different effects must result from the varying condition of such individual.

This, then, is the next point for examination; for it is certain that the air to which we are exposed, or which we breathe with impunity, at one period, will often give us

cold at another; that a viand eaten without producing disorder in the digestive organs at one period, may excite very marked disturbance at another; and that impressions on the nervous system, over which we ride buoyant as it were to day, may depress us exceedingly, if we are exposed to them, to morrow.

Mr. Abernethy used to say, that a very useful book, he conceived, might be written on "catching cold." He did not explain himself; but I have no doubt he alluded to the complicated effects, produced in some such cases through the influences, either separately or in conjunction, of the sympathies on a previously disordered condition of the nervous system; whether induced by disorder of the digestive organs, or otherwise; for my part, I think, modified in its effects by such circumstances, cold, or, to speak more correctly, change of temperature, acting through the sympathetic influence of the skin, seems the exciting cause of the principal diseases of this country.

Let us then consider a little further the

different effects of the same agents, "cold and moisture," when applied to the skin.

Whenever cold and moisture are applied to the skin with perfect impunity, as regards the health, I believe it will be found, that reaction is produced in the part; which, increasing its actions in proportion to the depressing influences to which it is subjected, preserves the equilibrium of the circulation, and prevents that determination of the blood to other parts, which is the beginning of disease, whether this be manifested in the part to which the blood is so determined, or otherwise: and further, that this reaction is equally invariable, whether the whole, or only a part, of the skin has been affected.

The reaction of the skin, after bathing, is familiar; it is perhaps even more marked in the glow, often consequent on changing our clothes, after having been, as it is termed, wet through. The state of skin it implies, is more *visibly* demonstrated, by the increased vascularity of the hands of boys who are fond of dabbling in the water, and in the ruddy limbs of those who have these parts habitually exposed.

If the skin, from any cause, be not vigorous,—or say, if you please, that the cold be long continued,—the reaction does not then take place, or after a time ceases; there is then a sensation of chilliness. If this chilliness be allowed to continue, the reaction, which ordinarily takes place in the skin, is succeeded by one analogous, in some other part; and, in the great majority of cases, in some one with which the skin is known to sympathize. Now, that this is sympathy, the remedies which are successful, as well as the history of disease, alike demonstrate.

Say that the primary affection of the skin produces an affection of the throat—what is it, but an increased vascular action, *analogous* to that which should have taken place on the skin? The patient applies a warm stocking to the throat, gets into a warm bed, and often rises in the morning nearly or quite well.

Now, here the remedy, as well as the exciter of the disease, is applied to the skin; but you may equally remove the disorder, in many cases, by remedies applied to the

throat; or, more commonly still, to other organs: but it is of consequence to observe, that you cannot effect this, without producing in the skin (in which there may, perhaps, be now no very marked feelings of disturbance) actions opposed to those which first characterized the disorder; actions evidencing a return of the circulation to its equilibrium. This remark is equally true, whether we apply it to remedies administered to the stomach, bowels, or skin; or even to the popular remedy for a cold and sore throat, brandy and sugar, which, wherever it does good, produces diaphoresis; but should the part which sympathizes with the skin be previously disordered, the sympathetic excitement is much more serious; if the part thus sympathetically attacked be previously diseased, or, should the general health have been previously disturbed, the consequences are frequently fatal.

Persons having a disposition to bronchitis, illustrate the former position; chronic disease of the larynx, or tuberculated lung, the latter. If the liver have been previously disordered, a general state of excitement is

set up, popularly called a bilious attack ; if this be exaggerated, you have fever, of the continued or remittent kind. If the liver be diseased, you may have irritative fever, exhaustion, shivering, and suppuration : in fact, you have sometimes a slight disturbance, of some part, which is readily removed ; sometimes you have serious indisposition ; sometimes a fatal malady ; and all, where the exciting cause is not distinguishably different. It frequently happens, that these different results have taken place in the same individual. How are we to explain the difference ? It would be presumptuous, perhaps, to answer this question very positively ; but I will tell you what my impressions on the subject are, and the reasoning on which they are based. Now, it is clear that the different effects produced by external influences, which appear in their nature identical, must owe their primary character to the state of the nervous system to which they are presented. And this, because we can conceive no other source through which they make any impression at all. To say what this particular state of the

nervous system may be, as appearing irritable, excitable, or what not, is unnecessary; it encumbers the argument, without assisting the investigation.

Different conditions of the nervous system, then, occasion very different effects, to be produced from external causes, which we believe to be identical.

Now, then, what is it which produces these or any differences in the nervous system? That seems to be the first step in the enquiry.

There may be, and probably are, many causes, with which we are unacquainted; but there are many others which are well known, as disturbers of the nervous system. Disorder of any one function of the body, is competent to produce general disturbance of the nervous system. But disorders of some parts, or impressions of a particular kind, produce a greater or more marked disturbance than others; for example, disorders of the stomach, or painful mental impressions. Here, then, we have again a wide field opened for enquiry; for if it indeed be true, that any organ in the body is competent to dis-

order the nervous system, and that some derange it more than others, it is evident that the next step will be to enquire which organ, by the frequency of its disorders, by the importance of its connexions, or by its power of disturbing the nervous system, is likely to be the most frequent cause of disturbance ; and then to see how this accords with, or explains, any other facts, afforded by experience or observation. But, previously to making this enquiry, there are some preliminary observations to be submitted to you.

Now, when cold is applied to the skin, and reaction does not take place, it depresses the circulation of the part ; and this effect, propagated over the surface by sympathy, produces a general depression ; a sense of shivering supervenes. This effect cannot be accompanied by any diminution of the circulating blood ; and hence it follows, that there is an unusual determination of that fluid to some other part. This will be some organ or structure with which the skin has a disposition to sympathize ; but the particular part will be determined by cir-

cumstances ; and these, as has already been observed, will be different at different times, even in the same persons.

The circumstances determining which part is to sympathize with the skin, when depressed by cold, may, many of them, be beyond our research ; those which act most commonly, and which appear most important, are, I think, very observable.

First, *cæteris paribus* (and particularly idiosyncrasy excepted), the skin will excite sympathies in some part with which it has a known tendency so to do ; such as the throat, alimentary canal, lungs or kidney, &c.

All other things, too, *being alike*, it will excite sympathy, most frequently, in the surface nearest in continuity to it, that is accessible by the same influences,—viz. cold and moisture.

Every one knows that a very common effect of cold is affection of the nose, throat, and fauces.

But a vast number of cases are not to be viewed in this way. The different organs are NOT placed under the same circum-

stances; and this suggests further modifying influences of a more complex character.

The disposition of any part or organ to sympathize with the skin, will be particularly modified by the condition of that part or organ. If this disposition be that of disease, its disposition to sympathize will be much increased: this is what is called a cold flying to the weak part.

To put this in another way. Suppose that, under circumstances of health, the respiratory organs have a more excitable sympathy with the skin, when impressed by cold, than the bowels, stomach, or liver. A very little, of even functional disorder, will reverse this order, and make the bowels, stomach, liver, or kidney, exhibit a much more lively sympathy than the lungs. Or, say that the lungs are disordered or diseased; their sympathy becomes immediately more readily excited, and more serious in its operation.

Further, the disorder of a particular organ will not only render its sympathies more easily excited by depression of the cutaneous circulation, but it will quicken the

sympathies of other organs with which the sympathies may be mutual: as the liver, if disordered, will first sympathize itself, and then induce affection of the stomach and head; and this sometimes so quickly, that it appears like a direct sympathy; the previous affection of the liver escaping notice, in the rapid development of the affection of the stomach and head.

Again, the existence of *disorder* of any organ, prone to sympathize with the skin, will not only induce it to take the lead in sympathy with the skin, but it will also confer on the skin an increased susceptibility to primary impressions. The brain, stomach, liver, lungs, kidney, and urinary organs, all shew this. Were I to select two from amongst these, which all so strikingly demonstrate the fact, I would choose the stomach and kidney. Not only will disorder of the stomach influence the susceptibility of the skin, but even its condition of moderate fulness or emptiness will suffice. Let any one think of the difference of a frosty day, when his stomach is empty,

or after a meal. Darkness and light are not more different than his sensations. Every one knows the effect of a strong stimulus on the stomach previous to exposure.

The phenomena of vomiting have been already alluded to.

In advanced stages of disease of the urinary organs, the susceptibility of the skin is exceedingly marked, and nothing is more important than to guard it; nothing more quickly exciting the last paroxysm in the scene of suffering from urinary diseases than some unlucky impression made on the sensitive cutaneous surface. It is important, here, to remark, that no part has such important sympathies as the skin, unless it be parts which, like it, contribute to form what I have ventured to call the portals of the body; for the nervous system, lungs, digestive and urinary organs, seem entitled to be thus considered.

Let either of these parts be primarily affected, and some other of them, commonly all, in a greater or less degree,

quickly evince a sympathetic recognition of the disturbance. If the stomach, there is paleness, chilliness, alternating with heat and perspiration, oppressed breathing, and depression of nervous energy. If skin, either in a severe cold or destructive burn, you have similar phenomena. If lungs, the skin especially, generally the stomach, and always the nervous system; sometimes by depression; at others, by the buoyancy of morbid excitement.

I need scarcely mention the pale face, the deficient appetite, the slow respiration, as some of the multiform effects of severe primary nervous depression; nor need I pursue the illustration as regards the urinary organs and bowels.

It is not meant, of course, to be represented that these are the *constant* effects of injurious impressions primarily addressed to the respective organs; but they are selected as examples, which appear striking, and which happen sufficiently often to be familiar.

To recapitulate: it has already been

stated, that, *cæteris paribus*, with organs disposed to sympathize with each other, this sympathy will have its activity increased by disorder of any one of them, and that its effect will be modified by the kind, perhaps I should say degree, of that disorder.

In this view, any disorder in the organs I have mentioned, would increase the susceptibility of the skin ; would, in fact, lessen its vital energies in resisting or counteracting the effects of cold, doubtless. I am aware that two propositions are involved in the foregoing remark, which are not perhaps necessarily co-existent—viz. increase of susceptibility, with diminution of vital energy. As, however, this combined effect on the skin, from disorder or disease of any important organ, is a well-established fact, I do not stop to discuss the question, whether increased susceptibility and diminished vital power are, or are not, *generally*, presented in combination ; although the general decision of that question does not appear to furnish much ground for difference of opinion. The next step in the

enquiry would be, to ascertain what organ, by its previous disorder, most *frequently* confers this susceptibility.

It must be admitted that there are persons of delicate frame, whose nervous systems are very susceptible, and who, without being in a state justifying the term disease, are more prone to suffer from changes of temperature than others.

2ndly. That many, in whom the seat or causes of susceptibility can be ascertained, are found to have it in the lungs.

3dly. That the skin, from original peculiarity, has a varying susceptibility of its own: and,

4thly. That the digestive organs, when disordered, are capable of conferring a general susceptibility, and of the skin especially, will not, I suppose, be questioned.

Now, then, we enquire what are the most common causes which prevent the skin from reacting, as it does in health, when depressed by cold, and, instead of this (I will not say giving rise to) but being followed by fevers, inflammations, affections of the lungs or liver, gout, rheumatism, in

fact, many other disorders? The argument is not very lengthy, but important. Part of it is a kind of argument *à priori*, and we will discuss that in the first place.

In contemplating the primitive state of man, every consideration suggests the probability of his diseases having been, originally, comparatively few and simple; while accidents would have been at times, of course, unavoidable; indeed, it is on this ground, that surgery has been supposed to be of greater antiquity than medicine.

The progress of civilization, in the improvement of the medical art, seems also to have increased its necessity; or perhaps the converse of this statement would be nearer the truth. But still, man would have been subject, in all times, to changes of temperature, to the influence of the passions, and to varying conditions of the digestive organs, consequent on that irregularity, both as to quantity and quality of his food, which hunting would more generally have supplied. Diseases among animals are few, except when they become domesticated. This strengthens the sup-

position, that, in a state of nature, the preservative powers of the body are sufficient to maintain a much nearer approximation to health, either in the prevention or removal of disease, than they are found practically to do in civilized communities. Hence, in investigating the causes of disease, either as occurring through the skin or any other of the organs, I have mentioned, either from primary impressions, in the abstract, or from a force being given to them by sympathy, it is desirable that we consider what alterations are most likely to have been effected by the progress of civilization and refinement, and through what set of organs these changes may have chiefly operated.

Nervous system. The disturbing influences applied directly to the nervous system (and here I allude to those of a moral kind), in a primitive state of man, must certainly have been few, in comparison to those occurring in a civilized condition.

In the former case, the passions (fear and anger especially, perhaps) would have been those most frequent in operation ;

and, though both tending to impair physical power, yet seldom being very enduring in their active sense, would not have been abundant sources of disease.

The depressing and exciting influences of civilized life, are much more numerous and complicated, and impressed on a sensibility of nervous system much more refined. Improved moral government would doubtless diminish the force of these impressions; but they undoubtedly constitute predisposing causes to diseases, and, in many instances, to those maladies which, in this country, are so commonly ushered in by what is called "catching cold."

Yet, on consideration, this predisposing influence would appear to be very measured, as compared to some others; for "colds" are very common, without the concurrence of any moral or nervous depression, or excitement; and nervous disturbance of the moral kind is frequent enough, without the occurrence of catarrh of any kind.

With regard to the changes which civilized life may have produced in the impressions, primarily presented to the lungs

or skin, we must believe that they have been rather in favour of these organs than otherwise; if we except the influence of air in very crowded cities. It is not to be denied that the removal or thinning of forests, the draining of marshes, and general cultivation of the surface of the earth, very much improves the salubrity of the atmosphere. This is a matter susceptible of demonstration. Then, as regards changes of temperature, which are unavoidable, the progress of civilization would have improved our methods of defence in the more efficient adaptation of clothing to the circumstances, and which the progress of the arts and manufactures would obviously supply. Some drawback to these advantages may be reasonably allowed, for an increased susceptibility consequent on Luxury; in what her prurient desire for enjoyment may have added to comfort or necessity; but, on the whole, the changes consequent on civilization, as regards primary impressions on the skin and lungs, must be evidently in favour of these organs. But, even, were we to admit, that the influences of civilized life

did in some points of view increase the susceptibilities of the functions to which I have so far referred, or that they augmented, by their sympathetic connexion with it, the sensibility of the cutaneous surface, still this appears to shrink into nothing when compared to the endless variety of condition, the interminable changes of action and sensation, to which a perverted use of man's distinguishing attribute enables him to subject the alimentary canal.

Not content with satisfying the suggestions of Nature, by one kind of food, every meal often becomes the occasion of factitious stimulation.

Sometimes by variety of condiment; sometimes by direct stimuli. Does excitement produce weakness, the jaded organ is stimulated anew. If the ingenuity of the epicure, or the power of the gourmand, fail, medicine too often lends its aid as a so-disant votary of science in the general work of excitement; and tonics, cordials, dinner pills, and a variety of ministerings to the fatigued sensualist, lull those healthy cautions, which the sensations of Nature sug-

gest, and sustain for a little, a transitory enjoyment, only more surely to complete a functional derangement which luxury had begun.

Is this a true picture, or is it not? If it be thought untrue, I would answer, where is the medical man whose experience (and should I exceed the truth, were I to add, with regard to some at least, whose practice?) has not furnished examples of it, more or less abundant.

It is humiliating to reflect, that truths, which should emanate from those who study the science to which they refer, should sometimes become popular, before they are acted on; and that those, who should be the diligent observers and humble expounders of the laws of Nature, should sometimes first receive information from those who ought to be their disciples. To return: if the before-mentioned position be true,—and it is a truth that may well challenge enquiry,—we shall not long hesitate, to which organs we are most frequently to ascribe our diseases; whether they be derived from primary impressions on those organs, or by

that increased sensibility to primary impressions, which disordered organs confer on those with which they sympathize. If the fact, stated with relation to sympathies, be true,—if the representation of that complicated increase of injurious impression to which the digestive organs are subjected, be admitted,—the conclusion is unavoidable. Here, then, is an argument, a priori, in favour of the extensive influence of disorder of the alimentary canal, in more frequently increasing the susceptibilities of the organs with which it is disposed to sympathize; because, whilst other organs, constituting the portals of the body, are in a *comparatively* natural state, as to external influences, having seldom to counteract any to which they are not necessarily or naturally exposed; the digestive organs, on the contrary, are subject to every possible variety of adaptation of function, from factitious causes of derangement; so numerous, and so varied, as to be alike but in one feature, that they are generally contrary to nature and to common sense. But is the argument, a priori, borne out by subsequent investiga-

tion? I confidently reply in the affirmative.

Any one, who will examine into the previous condition of those persons who labour under any morbid condition, excited by change of temperature, will soon be convinced of the predisposing causes which I have mentioned, as well as the more frequent influence of that suggested by the condition of the digestive organs. Some of these are even popular already; such as the susceptibility to cold during the operation of active medicines, as purgatives. I cannot here go further into this argument; the facts are abundant and conclusive. I am content to rest it on the general view of the influence of the digestive organs, presented in the discourse which concludes this volume; and on the united observation and experience of mankind, which, when once directed to a truth, seldom fail, sooner or later, to discover and adjust its real bearing and importance.

In extending our considerations of sympathetic phenomena to the character, or the treatment, of disease, we find that, when a remedy is applied to an organ primarily

affected, it often not only corrects the disorder of that organ, but also those sympathetic disturbances to which such primary affection may have given rise.

We find also another very important fact, that this condition (of applying our remedies to a primarily affected organ), though the most desirable, where we can procure it, is by no means always necessary: on the contrary, that it can be very frequently dispensed with altogether; and that remedies applied to organs secondarily affected, or even where not *visibly* affected at all (supposing that they have a natural disposition to sympathize with those which are), become in many instances (provided the primarily affected organs receive no new cause of disturbance) equally salutary and effectual. It may be as well to illustrate these positions by a few familiar examples; and first, as regards

Sympathetic Effects produced through Organs primarily affected.

If the chill of the skin be followed by an affection of the bowels, and this be re-

lieved by a warm bath, I consider both the remedy and the disease sympathetic*. If disorder of the stomach produce pain in the head, and this be relieved,—no matter whether by diet, abstinence, emetics, or cordials,—is not the disease and the remedy sympathetic, as regards the head? If, on the other hand, moral or nervous depression affects the stomach, and change of scene, quiet, and cheerful society restore it, are not the disease and the remedy sympathetic as regards the stomach?

But it may be said, this is all very well known; but what I wish to impress is, that the corrective effects of sympathetic influences, are by no means confined to those which operate on the organ which, so far as we can judge, appears primarily affected, but that they will, *in many cases*, exert a beneficial influence just as certain through organs which may be secondarily affected.

* Though not the less real; nothing appears to me a stronger proof that we by no means bear in mind the importance of sympathy, than the simple fact, of the frequency with which we hear the phrase “merely sympathetic.”

*Sympathetic Effects produced through Organs
secondarily affected.*

If affection of the head produced cold feet, how is the head so frequently relieved by immersion of the feet in hot water, but by sympathetic effect on the circulation? If strangulated hernia produce, as we know it does, disordered state of the skin, and if the hernia be relieved whilst the patient is in the warm bath, how is this but by sympathy of parts secondarily affected? In cold, threatening fever, how does an emetic so often relieve, especially as it is by no means restricted to cases where we can trace primary disorders of the stomach? In asthma, the relief afforded by an emetic, and which again seems to operate by its effect on the skin, can only be referred to similar secondary sympathies. If the state of brain in fever produce sensibility of the eye and ear, rendering ordinary impressions in these organs not only painful, but capable of reacting and exasperating the cerebral disorder, and if darkness and silence be found to assist in quieting such disturbance, are

not both phenomena equally demonstrative of the influence of sympathy acting through organs secondarily affected? Occasional mistakes throw light on the subject, and shew that the extreme of the principle, in demonstrating that we may act through organs which are secondarily or tertially affected.

Many affections of the liver and bowels may be relieved by cautions and remedies addressed to the stomach. Disorders of the alimentary canal are frequently kept in check by spontaneous exertions of the skin and kidney. Affections of the stomach, occurring from sympathy with the uterus, strikingly manifest the benefit occasionally arising from directing our attention to an organ, to all appearance secondarily affected, where we cannot materially influence the organ primarily affected.

Affections of the testicle evidence the same fact. Often have I seen the most active local treatment of inflammation of the testes wholly inefficacious, in cases where it seems generally overlooked, that the specific nature of the inflammation places it out of the pale of *mere* anti-inflammatory treat-

ment; whilst, in the same case, measures directed to the stomach and skin, have produced most decided relief. In my view, gonorrhœal ophthalmia often supplies, under the rapid inducement of a peculiar state of constitution, a very powerful illustration of the same principle; but, as the explanation is somewhat complex, I will not press it as an argument.

How happens it, that vapour bathing effects so much good, in so many, such obstinate, and, I may add, such a variety of morbid affections, and this too, where we have no evidence whatever of the skin being previously affected? In no other way, as I believe, than by the extensive sympathies of the skin, probably enforced, as the sympathies of this extended surface are, by their intimate connexion with the vast involution of it presented in the urinary, respiratory, and digestive organs. Mr. Green, the proprietor of the vapour baths in Great Marlborough Street (and who is also a surgeon), has published a list of cases, some of them patients of his own, in which the benefit of vapour-bathing is shewn to be

very marked; and, certainly, in some instances, where the circumstances were very inauspicious for the fair trial of any remedy. The cases referred to appear to me quite intelligible, when considered with reference to the sympathies of the skin; but with this remedy, as with most others, the adjustment of its real claims is rendered different from very opposite causes: some expect more from it than it is capable of performing; others employ it in cases where it is inapplicable; and a third class obscure the subject by neglecting those coadjutory measures, on which the benefit of any remedy, applied to so important an organ as the skin, must, in a greater or less degree, depend. A vapour or warm bath is pleasant and agreeable; but the regulation of torpid bowels is troublesome, and restrictions in diet are unpopular.

Many of my professional brethren have, in particular cases, felt difficulty in reconciling the effects of local remedies with the constitutional character of a disease. I cannot see the difficulty in question; I think it just as intelligible as many other

pathological phenomena, which we have no difficulty in reconciling ; although, perhaps, in the strict sense of the word, we can be said to understand neither one nor the other. These effects, however, and the more cognizable, admitted phenomena of sympathy, seem to me mutually to reflect light on each other.

Let us consider this a little in detail. The whole body has sympathy with every part, doubtless. Every part, too, has its own preservative actions. These preservative endeavours seem, for the most part, resolvable into one or two principles. Either a diminution or arrest of function, or an increase of it, so far as may be necessary to expel or overcome the exciting cause, whether mechanical, chemical, or sympathetic ; or, if the process be destructive, to limit its operations, or transfer it to less important, or more highly organized parts. To illustrate these positions, it may be observed, that the preservative actions of glandular structures are chiefly secretory ; as in the salivary glands, liver, or kidney. The stomach has the power of re-

lieving itself in many ways ; by secretion, by rejection of what it has already taken, or by a suspension of function, as in refusing to take more ; and by exciting one or other organs to its assistance in one or all of these actions ; as the gustatory sense, in nausea. Cellular tissue, bone, and the more usual seats of diseases called local, have also their preservative actions. That generally required is reparative, as in breach of continuity ; but they have also preservative actions.

Cellular tissue exhibits this, when it circumscribes injurious actions by adhesive inflammation. The skin, too, has its preservative modes of disposing of local irritation ; sometimes, by diffusing it over a large surface ; sometimes allowing, in conjunction with cellular tissue, its concentration in one part, where it is removed from important structures and yet near the sources of circulation, which experience shews to be spots most favourable for reparation—as in boil ; more strikingly still in carbuncle. Even in bones, whose preservative powers are of a low order, but exactly analogous in kind with every other part,

we see a disposition to transfer diseased actions to other more powerfully vital parts, as if they were more capable of coping with it. We see this in the abscesses of soft parts, connected with symptoms of irritation in bone, where a timely division of superjacent structures prevents the threatened mischief to the less highly organized part.

Now, if we apply these remarks to the action of local remedies, where is the difference between skin, cellular tissue, or external parts, and the internal organs. If the stomach, or general nervous derangement, is capable of disordering the liver, it will not be denied that this is, to all intents and purposes, a constitutional affection; yet so far is it from making remedies applied to the liver useless, that they will frequently themselves correct the disorder: yet the application shall be local; or, if no first excitement be given by the stomach, it may, to keep the reasoning clear, even be in the form of external application. So, in many local diseases involving breach of surface or continuity, remedies applied, will often

induce healthy actions ; when, nevertheless, the cause has been altogether constitutional.

Again, how does a poultice give relief in gout ? This is surely a constitutional disease. It is very true, I believe, that local remedies will not cure diseases whilst the constitutional causes are still in operation ; neither will remedies directed to the liver, which has been disordered by derangement of stomach, relieve it entirely, if the stomach be allowed to be the channel for renewed provocation.

In the treatment, however, of diseases occurring on the surface of the body, the error of the constitution is sometimes corrected by the very occurrence of the disease in question ; and this leads those, whose habitual reliance on their visual, creates a tendency to the exclusion of their intellectual perceptions, to infer that the disease was local. Now, were it not that sympathy confers on the part the power of a reaction on the constitution, or for the continued provocations to which the constitution is usually subjected, it is probable

that a great many more local diseases than we can find examples of at present, would yield to local treatment ; for they always appear to be efforts of Nature to throw off general disturbance ; though, by a strange oversight, we are never so blind to her preservative power as when she is successful in the exercise of it. How many cases are there in which the mere inefficiency of local remedies has been the very thing which has led to their entire rejection ; and, in many of these cases, of what has the constitutional treatment consisted, but in avoidance of sources of excitement, which the patient's feelings and experience may have suggested as improper for him, and productive of mischief.

Sympathy, to my mind, appears to render all this sufficiently intelligible. The preservative power transfers general disorder to a local seat, as offering a part, perhaps less important, or as capable of taking on actions which could not take place, in organs essential to vitality, without annulling their functions. If no fresh disturbance take place, the sympathy of that part may

not be reciprocal, or only in a slight degree, producing a moderate excitement favourable to its own work; a state of things sometimes seen in common boil: or the local disturbance may be so great as to make it react on the constitution, as in carbuncle. Does any one, at this day, conclude, from the extreme benefit attending the free and deep divisions of carbuncle, that it is a local disease?

If diseases of external parts can be proved,—as in gout, many ulcerations of the extremities, boil, catarrh,—to be efforts of Nature to relieve the constitution why should we think that she pursues a different law with other affections of the surface? Do we find her, in other departments of the creation, varying her laws for the adoption of a single object? I think not. We often find her exemplifying, in a marvellous diversity of phenomena, the application of a single principle; but I know of no instance of her accomplishing one object by a diversity of laws. Why some diseases should be fatal,—in other words, why the preservative power of the body should be

limited,—is just another way of asking why, as I have before observed, death, as well as life, is a law of our nature.

But, even in fatal diseases, Nature is still consistent. We see types of her preservative power even to the very last, and always characterized by attempts to transfer disease to less important organs. To the bowels, skin, and cellular membrane, in phthisis; to serous membranes in diseases of the heart; and often, as we know, with sustaining power delaying that, of which her own laws forbid the entire prevention.

In diseases, too, of the heart and arteries, and in the progressive absorption induced by the pressure of aneurisms, and in affections of the skin, in an enlarged sense of the term, we see the same principle in operation.

To return for a moment to local remedies. Is cancer a constitutional disease? yet we relieve its pain by local remedies; and I may remark by the way, that the facts at present known, of which I have experienced some myself, induce me to hope that, at no distant period, we shall, by judi-

cious constitutional measures, succeed in relieving it altogether. We, however, relieve it by local remedies. But the cases where the benefit of local measures in affections, markedly constitutional, are best seen, are those presented by diseases of joints. A man has disease in his knee, his diet has been attended to, his secretions improved, his knee leeches, perhaps counter-irritants applied, and he is better; but still his tongue is white, his pulse indicates excitement, he has still some pains, and his nights are indifferent; you put him in splints, keep the joint steady, and every thing wears a new face in twenty-four hours. This is the case where the local remedy is superadded to the constitutional. The effect is sometimes equally marked in the employment of counter-irritation. Of both I have seen repeated examples; they must be known to every one, especially those who conduct the local treatment of joints with strict attention to splints, as taught by Mr. Abernethy. Yet who dreams, therefore, that the disease was local?

In the common porrigo, it is curious to

see the obscurity which men make for themselves, with regard to this disease (intractable occasionally, certainly, but, as I have endeavoured to shew elsewhere, less obstinate than most other cutaneous diseases, when properly treated), by supposing it local, because it is, in many cases, remediable by local remedies ; but, looked at in this way, it is an obstinate disease, and will continue to be so, until, like many others, which an improving science has so arranged, it shall be numbered, by general consent, amongst the diseases of constitutional origin. I will, however, press the point no further ; it must be left to time, and the slow operation of experience and reflexion.

So far in explaining the action of remedies. I now proceed to apply the doctrine of sympathy to the treatment of diseases. First, as bringing diseases under our control, which I contend are often not so, when otherwise treated.

Secondly, as relieving those, without prejudice to the constitution, which are generally treated by means, which, there is the

strongest reason for believing, produce future consequences much counterbalancing the present advantage ; and

Thirdly, as acting in a way, whilst it does not diminish the paramount importance ; and, consequently, our search after primary impressions shall still modify our application in a way not hitherto sufficiently, or, as I believe, at all attended to, on scientific principles.

As bringing diseases within our control usually not so when otherwise treated. This includes a variety of local disorders dependent on derangement of the digestive organs, as well as affections of these organs where they have not produced local diseases. In cases, in fact, where you have in vain tried to correct the constitutional disorder by means directed to the organ, to all appearance primarily affected, you address yourself to organs with which it has known sympathies ; and, by exciting those where there appears to be deficient action, or soothing them where the action appears to be excessive or irregular, you either at once obtain the benefit you require, or do it

secondarily, by rendering the primarily affected organ amenable to influences before inefficiently employed.

I have seen many cases of ailing individuals, whose disorders have been ill defined, as well as others, in whom the symptoms have been more pointed as regards particular organs, which have owed their relief to that extension of the constitutional treatment, which consists in working through different sympathies ; and I believe that the occasional good effects of quack medicines result from their acting through some sympathy which had not been previously acted on. It is certain that those which have been most accredited, operate in this way ; for they usually produce violent effects either of skin, alimentary canal, or kidney. A few random shots, however, if successful, appear to afford a very inadequate compensation, either as regards the public or the interests of science, for the mischief annually perpetrated by these scourges, under the protecting auspices of ignorance and credulity ; and, in some sort also, those of a Government, who, for no other reason

that I can perceive, but an inconsiderable revenue, allow of a system alike injurious to the public health, and unworthy of the guardians of a great empire*.

To return, however, to sympathy: I know it is difficult to prove any proposition, in a science so far from exact, as that of medicine or even surgery; but I will not attempt to prove. I shall be perfectly satisfied if I can illustrate what I mean; because I rely on the profession for trying its practical application, and I rely on its practical application for adjusting its truth or value. The advocacy of one man will never establish an opinion: it would be very injurious if it were so. Every one knows how Mr. Abernethy's opinions were first received, both as regards the treatment of disease, the nature of life,

* The glaring absurdity and injustice of requiring one set of men to incur the expense of a liberal education, and an examination, before they can prescribe the most simple medicine; and, on the other hand, allowing any one, without any education at all, to sell any nostrum he chooses, on paying a stamp duty; although the composition of the nostrum is avowedly concealed; is surely one of the most monstrous abortions ever presented by the exuberant fecundity of legislative conception.

electricity, &c. Only contrast their reception with the facts revealed by science since that time ; and if any thing could induce us to wish him back, it would be, that he might enjoy the intellectual triumph which progressing science had prepared. I will now, then, relate a case or two:

A lady applied to me, for symptoms which appeared to be connected with primary hepatic disorder, a consequent much-disordered state of the bowels, evidently connected with, if not dependant on, mechanical obstruction by stricture. Her countenance was yellow, as were the conjunctivæ. She had a variety of strange nervous sensations, in different parts of the body ; sometimes pain in the head, with threatening loss of consciousness, or fainting ; sometimes cramps, pains in the loins ; peculiar sensations referred to the uterus : in fact, I can hardly recollect the variety of morbid sensations of which she complained ; for a fresh visit would sometimes develop something new in this way. She had been attended by a gentleman, who seemed disposed to refer her symptoms to the uterus.

She was about the age when the catamenia disappear; and she saw nothing, except, now and then, a slight muco-sanguineous discharge, in a small quantity, and occurring after long and irregular intervals. Her tongue was furred; her appetite failed; stomach uneasy and flatulent, bowels obstinately costive, and when they did act, it was under the influence of medicine, and with pain. Her diet was attended to very strictly, and she was allowed but a measured quantity of meat. Her bowels were acted on by aperient medicines, in graduated doses; and the stricture of the rectum relieved by bougies of varying diameter: an abscess which formed was opened early; and though it threatened fistula, yet it did not occur. Her liver, however, would not secrete properly, and, therefore, neither her bowels nor her stomach got right. She had a great susceptibility to mercury, which invariably disagreed with her—first, by not acting on the liver, and then by inducing so much depression of the nervous system, as always to do more harm than good. She took various things as substitutes for it; and, amongst

others, the compound extract of colocynth and nitric acid ; but no success attended these endeavours ; directed to the liver, from its disorder not only appearing, from the history, to have been the primary one, but as being remarkable at this time, and obviously competent to account for the disorder of the bowels.

There now remained no evidence of difficulty of a mechanical kind ; and, under these circumstances, she was treated by attentions to the organs secondarily affected. No attention of any kind was paid directly to the liver : whenever she took aperients, they were of a kind to act chiefly or wholly on the bowels ; the action of them being for the most part trusted to aperient enemata, alternately, with more frequent injections of warm water merely. Her diet was very sparing in quantity, and cautious as to its selection. Her skin was acted on by warm clothing, and vapour bathing. In a comparatively short time, she improved ; her bowels became more tractable, her biliary secretions regular. She lost a highly painful affection of the rectum, exceedingly in-

creased on the expulsion of the fæces, and, in short, got so well, as to carry in her appearance no evidence of disorder. As she had no opportunity of taking the exercise which she had been recommended, she is still obliged to attend to her bowels, and to assist them by such alternations of enemata of warm water, slight aperients, or little occasional variations in diet, as her experience may suggest to her ; in other respects she is well.

About six years ago, a lady, æt. 42, consulted me, chiefly, I believe, for what she conceived to be an affection of her head, characterized by constant noise and frequent giddiness, which was so distressing that she had relinquished going out, in consequence of the constant fear of falling in the street. Her tongue was furred, her bowels irregular ; her appetite not very good. She had not menstruated for some months, except a small appearance at irregular intervals. Menstruation had not commenced until she was 19. Her extremities were generally cold, and she complained of pains shooting across the upper part of the ab-

domen. She had been under the care of a distinguished physician; but some one having suggested that her complaint was surgical, she applied to me. I found that she had been four months under the care of the physician in question; but that she felt worse, rather than better. As she positively declined acceding to my wish for a consultation, I was obliged to gather her previous treatment from her own account, and from the prescriptions she submitted to my perusal. I found that she had had a few leeches applied once to her temples; but no other depletion: the treatment, on the contrary, consisted of emmenagogues, aloes, steel, and myrrh, with stimulants, camphor, carbonate of ammonia, &c. She was advised to eat meat, and to drink wine and water. As I could not agree in any part of this treatment, I again proposed a consultation; but she refused: on which I told her that my reason was, that my views of her case induced me to recommend a very different course; and that, as her case was one usually submitted to a physician, it would be more satisfactory to both parties. As she only

answered this with general expressions of confidence, I proceeded with the treatment. This consisted of venæsection, in the first place; followed by occasional application of leeches to the temples. Enemata of warm water, immersion of the feet in warm water and mustard, and aperients with calomel and antimony, and, subsequently, of antimony and colchicum. The biliary secretion was very much disordered; and mercury in any shape depressed her exceedingly, as did the abstraction of blood. The only form in which mercury seemed to be borne, was in combination with quinine; and, even in this way, it did not act very kindly, generally appearing to produce a fidgetty kind of excitement. She, however, got quite well by the adoption of the foregoing measures, to which was added a very cautious diet, abstinence from wine and stimuli, and daily exercise, either by walking or taking an airing in a carriage. On leaving her, I gave her very full directions, how she was to proceed to prevent a recurrence of her disorder; but, although an excellent patient as regarded obedience, when left to herself, she was

constantly prevailed on to commit errors of one kind or another; and her own inclination rather led her to neglect exercise, with the importance of which I had endeavoured especially to impress her. She had two returns, one of which commenced by her falling forwards in a carriage in a fit of giddiness, from which, however, she again recovered, once under my care, and once under the care of another gentleman, who requested my assistance in consultation. At length, she sent for me a third time, when I found she had been again ill, and had consulted a very popular physician, who recommended ammonia and stimulants, and that she should drink a certain quantity of rum and milk every morning. These measures appeared to have reproduced all her former symptoms, accompanied by others of a still more serious character. I found her labouring under flatulency, great pain across the abdomen, and tenderness on pressure; great prostration of strength; her countenance shrunk, a dark halo around her eye, her pulse extremely feeble; her stomach rejecting every thing, and altogether in an ap-

parently dying condition. She evidently thought herself dying. She thanked me for my former attention to her, and formally took leave of me. I endeavoured to inspire her with some hope; but, to say the truth, I did it but faintly; for I had none myself. As I wished to do something to relieve her, if possible, and, as any active measures were out of the question, and as I could not but think, from all I had seen of her case, that the alimentary organs were materially influential in producing her present depression, I merely ordered warm enemata to assist in the expulsion of air, or any of the contents of her bowels; and, as her stomach would take nothing, I desired that the enemata might be composed of gruel. She had also a mixture of *inf. aurantii*, with a little *confect. aromatica*; a very small quantity of which was to be taken every now and then, if, on trial, it appeared to relieve her. The next day she was much in the same state. On this occasion I examined the abdomen, and, in consequence of something she said, the rectum also. The liver appeared decidedly enlarged, and some chronic affection

of the uterus (as I suppose) produced a very palpable projection towards the rectum, but not so as to produce any mechanical obstruction. Although she was scarcely better, yet she had not sunk any lower; and as the state of the stomach, the disease of the liver, and her peculiarity with regard to mercury, seemed to forbid any thing directed to these organs, I confined my attention entirely to the bowels. She certainly was allowed to take very minute quantities of weak gruel, two or three times a day, but the bowels were made the channels, both for medicine and nutriment. They were kept clear by copious enemata of warm water, briskly injected by the syringe; and, at convenient intervals, moderate quantities of gruel and soup were thrown up with gentleness, so as to induce their retention. For the first few days, there was but little improvement, notwithstanding that some very unhealthy fæculent matter had been discharged. She then, however, began to rally, her features improved, the tenderness and pain disappeared; but she was still extremely weak. She was now ordered very minute quantities

of isinglass jelly, administered by the stomach, which was gradually alternated with minute portions of bread pudding; and, as her appetite returned, this was extended to a mild nutritious diet. The improvement now continued, and she was in a few weeks perfectly well. She is now very particular in her living; that is, she eats plain food, and, by her own wish, has relinquished wine altogether, of which she had been accustomed to take two glasses daily. I lately saw her, and she remains perfectly well; the only plan being the caution I have mentioned, and a little aperient medicine when she finds her bowels acting indifferently. To me the case is very striking; I know not if it be so to the reader. How was the case relieved, but by sympathy? Considerately looking to all the circumstances, one could scarcely conceive one more unfavourable for any plan, much less one which consisted only of such *apparently* simple measures.

The following case I have in part mentioned elsewhere, with a view of illustrating the fact, that often, where the primary impression has been addressed to the nervous

system, our chief means of tranquillizing it consist in guarding it against fresh sources of excitement, and especially those resulting from disturbance of the chylopoietic viscera, in the manner dwelt on by Mr. Abernethy. But the case, also, exemplifies how, when we have no means of addressing our remedies with effect to the primary organ, we may succeed in relieving it by attention to other organs with which it has a marked sympathy. A young woman received a severe shock, in going into a room, where, without her being previously aware of it, lay a corpse; she instantly fell down, and it was some time before she recovered her senses. She continued in a very nervous state, subject to frequent palpitations, and with cessation of the catamenia for several months. At this period, her leg began to exhibit a varicose state of the veins; and, two years from the commencement, and when I first saw her, the whole leg from the ankle to the knee was covered by as large a mass of diseased veins as I have ever seen at any age. Her bowels had been habitually costive for many months; so that, until lately, she had been

obliged to have constant recourse to aperient medicine. About six weeks previously to my seeing her, she struck her leg; an ulcer formed; and, as it did not heal, she applied to the Dispensary. Her pulse was very frequent and hurried, her tongue furred, her appetite deficient; but, since she has had the ulcer, she says her bowels have acted regularly without medicine; catamenia irregular. Here the nervous and vascular system became disordered, in the order which I have mentioned; subsequently the digestive organs, which to a certain extent, were again relieved by the accidental local malady. The treatment of the case was wholly directed to the chylopoietic viscera, to ensure the regularity of their functions, to diminish their labour, and avoid disturbance by plain food, and in moderate quantity. She not only completely recovered, but the case presents a feature which I never recollect seeing before: viz. the last time I saw her, the enormous masses of diseased superficial veins seemed to have become firm, far less prominent, and appeared evidently in progress of obliteration.

This surely is acting on organs secondarily affected, and seems to me a very interesting example of it; however, the reader must form his own conclusions.

A case occurred in the Dispensary very lately, and I mention it because the woman is still occasionally coming to the Institution, and, therefore, may be seen. She came with a large, superficial ulceration in the left leg; completely occupying the whole limb, from the knee to the ankle. She was desired to rest, poultice, and attend to her diet and bowels. I was talking about sympathy to two gentlemen who were sitting with me at the Dispensary, when the next patient happened to be this old woman, *æt.* 72; and, in explaining how they should examine cases, I said, there now is a case, which, though common enough, yet presents one feature, suggesting a consideration not usually belonging to that class of case.

The very large surface of skin thus affected, from what you know of burns, would suggest the probability that some part which sympathizes with the skin will here be well marked. Now, said I, first try the

alimentary canal. Her tongue was not good, nor much otherwise. Appetite good, and bowels regular. Now, said I, it does not follow, because of this, that the alimentary functions should be healthy; but let us now enquire about the kidney. We found that she made a very small quantity of water indeed, and that, generally very thick; but every now and then, she said, she made a very considerable quantity of pale urine. I now said to the pupil, just act a little on her kidney, and see the effect on the leg; but let her omit all her other medicine, and only take a diuretic.

The next time I saw the woman, her leg was entirely healed, the whole surface having cicatrized in about a week. We all thought the case was very striking. Her kidney acting naturally, the diuretic was discontinued. In about ten days the leg again became uneasy, and some pimples appeared on it; the bowels were acted on a little more freely, and these pimples disappeared; but the leg still continued very hot and painful, and seemed to threaten, by its increase of temperature, some further local disturb-

ance. The medicine directed to her kidney was again employed, and the uneasiness of the leg again subsided. This old woman labours under a great deal of functional disorder, and, at her advanced age, it is not to be expected that any treatment will be long effectual. To use her own words, she feels very much better, but she does not expect to be made young again.

A disease, which frequently illustrates the advantage of treating a case by the sympathies, is strumous ophthalmia. The disease itself is, indeed, sympathetic; for it generally results either from disorder of the mucous surface of the bowels, from irritation of the stomach, or from injurious influences applied to the skin; frequently from the combined influences of all these circumstances. Treated in the way which I believe is now that generally adopted, the inflammatory symptoms are easily checked, and the characteristic irritability subsides as soon as the digestive organs have been set right as to the regularity of their action, and the nature of their secretions; but, nevertheless, we occasionally meet with

cases where the disorder of the alimentary canal proves unusually obstinate, or where, although this be corrected as far as regards the usual indications of its disorder, still the irritability of the eye remains, and obstinately resists the usual treatment. Under such circumstances, we often derive perfect success from very simple resources, and which can, I think, only operate through the sympathies. Of this I have seen many examples, although the mode of exemplification has been different in different cases; but in no one more commonly, than in that shewn in the following case.

A little girl, whose case would be but a detailed enumeration of the facts above referred to, and who had been treated in the usual mode, including the most accurate attention to means calculated to ensure tranquillity of the alimentary canal, still had as much irritability to light, as we find in the worst cases of this kind. As she had, at the time, counter-irritation behind the ear, it did not seem a particularly favourable case for the remedy about to be

mentioned ; but as almost every plan had failed, mercury inclusive, and as I had seen the greatest benefit derived in correcting disorders of stomach by the remedy in question, and by which disorder I considered that the irritability of the eye was maintained, I ordered the counter-irritation behind the ears to be allowed to heal, and then directed a tartar emetic plaster to be put on the epigastrium. In three days she would face broad day-light without inconvenience, and her case became as tractable as any ordinary case of the kind. Now, here the stomach, I have no doubt, was disordered ; but we could not get it right ; the impression on the skin in its neighbourhood, just gave the required turn to the case, and subdued a difficulty which, before this, appeared insuperable. I could relate various cases illustrating this subject ; but the cases must be seen to produce conviction, whilst, for mere purposes of this part of the subject, these will suffice ; and the increasing number of pages warns me that I am already exceeding the limits I had proposed to observe.

As relieving diseases, on which we have at present power, by means less injurious to the constitution.

Nothing appears more certain than that the phenomena of sympathy have not been applied in the manner, or to the extent, of which they are susceptible; or than that, where they have been applied, either on the suggestions of the sensations, as happens in some popular remedies, or in that confined view of disease which leads men merely to treat symptoms; that they have, nevertheless, under both these disadvantageous circumstances, been often productive of very material benefit.

No man can do more than speak from his own observation and experience; but, so far as mine has gone, very little attempt has been made to render the sympathies as available as they might be; and thus a powerful means of counteracting disease has been overlooked or abandoned; and, too frequently, just at the time when the observation of its phenomena becomes most necessary, deductions, alike legitimate and useful, have been overlooked, and their

place supplied by an appeal to a desperate empiricism; always a humiliating necessity, and not to be thought of until we have well ascertained that Nature no longer affords any suggestions for our guidance, which the present state of our knowledge allows us to understand. The inexactness of medical and surgical science, no less than the laws of life and death, too frequently impress on us the small extent of our knowledge. But still, it is to be feared that a prurient desire for short roads to success, frequently overcomes that patience and steadiness which are necessary in discovering the suggestions of Nature long before she ceases to manifest such suggestions. No sooner has some treatment, directed to a particular organ, been found unsuccessful, than, instead of more enlarged views being taken, and attempts made to produce changes, by the intervention of sympathetic actions in other organs, either the dose of medicine, which hitherto has failed, is enormously increased, or remedies are employed on grounds purely empirical, and of a description which, to say the least

of it, must be calculated to induce injurious effects on the constitution, even though they may be attended with beneficial effects, as regards the present symptoms of particular organs.

To exemplify what I mean, I may mention some of the remedies, which, though no doubt often highly useful, are nevertheless *too frequently* employed in the manner to which I have alluded. Calomel and opium, mercury generally, colchicum, croton oil, strychnine, kreosote, prussic acid, argenti nitras, narcotics, opium generally, and many others.

I must take this opportunity of observing, that there is no one more abundant source of error than the idea (a very natural one I admit) that a course, which soonest relieves a prominent or troublesome symptom, is necessarily the best practice. That this conclusion is not only erroneous, but, in its prospective results, often highly mischievous, is, in many cases, subject to the clearest demonstration. Nevertheless, the inconceivable difficulty of impressing the minds of many persons with this fact, in a

manner commensurate with its importance, can perhaps only be understood by the difficulty which many have experienced in establishing it in their own; nor is this, perhaps, to be wondered at, since, although the cases are numerous enough, which shew that measures attended with immediately flattering results, are nevertheless exceedingly detrimental in their consequences; yet, on the whole, perhaps, they may be regarded as exceptions. No one remedy appears to illustrate the fact in a more intelligible or indisputable manner than the abstraction of blood; however important and necessary it may be, when properly employed, it is even in such cases often productive of much subsequent mischief. But there are many affections in which it is often unnecessary, yet wherein it is a sure remedy for the more prominent symptom, and where it thus holds out an equal temptation to the patient and the practitioner. To the former it promises immediate relief, and perhaps an immunity from troublesome restrictions; to the latter it promises a quick success, the best security against a vacillating

confidence, which may not know how to discriminate, much less to value that steadiness which sacrifices a temporary success to procure a permanent advantage. The disorders to which I allude, are congestive determinations to the different viscera. The ready relief which bleeding affords in cerebral congestion, in many kinds of dyspnoea and hepatic congestion, is well known; and yet it would be by no means difficult to prove, that, with the exception of those cases in which the congestion so borders on inflammation, as not to be certainly distinguishable from it, or where it threatens effusion, bleeding is alike improper in all of them.

That it does not minister to the origin of the disease is clear; that, *cæteris paribus*, it accelerates its return, is so well known as to have become popular; and that by any easy and too prevalent transition, it lays the foundation for the most perplexing disorders of the nervous and vascular systems, chiefly characterized by an endless variety of irregularities in the circulation, a growing accuracy of observation is daily unfold-

ing to us. It seems to me, that both the public and the profession are much indebted to Dr. Marshall Hall for the light which he has thrown on this subject. But, although the abstraction of blood affords numerous illustrations of a remedy which immediately relieves a particular symptom, not constituting always the treatment best adapted to the state of the body which that symptom may characterize, still there are many other facts equally instructive. Acidity of stomach will be immediately relieved by an alkali ; but every one knows that this remedy will not prevent its return ; and those who have had an opportunity of witnessing it as a habit of years, know that it has seldom failed materially to embarrass the functions of the stomach. I need scarcely observe that the proper measures in such cases consist in preventing the acid being formed, not the mere neutralization of it when secreted. A moment's reflection would shew that such a step is not likely to relieve the real disease ; experience makes it a matter of demonstration. I do not say it may be

improper, in combination with other more efficient treatment, to endeavour to relieve the state of stomach in question by the alkali; yet, to trust to this alone, is evidently as unscientific as it is manifestly injurious. No affection is more surely relieved in the majority of cases, by studying the peculiarity of the stomach, than that in which the practice I would deprecate is more prevalent. How many states of stomach are there, relieved soonest by brandy, wine, or other remedies more generally known as medical stimuli. Yet I believe that few sources are more prolific in their injurious consequences than such practice. The dram-drinker is but a melancholy example of its operation. The unfortunate who rests his nerves on laudanum, is too often a victim to the same principle; although the original intention in this case, as well as the effect, may have been different from that of stimulus.

The hasty conclusions, of which I have endeavoured to shew the fallacy, are further injurious, from the flattering results which they present, frequently closing our eyes or

lulling our vigilance with regard to the causation of disease.

What has been said of bleeding, the employment of alkalies, and stimuli in stomachic affections, appears to apply with equal force to the use of mercury; and I mention this particularly, because it is a remedy which I am obliged to employ largely myself in inflammations of the eye and other organs; I need not say with how much good, since every one knows how effectual mercury is in such cases. All this, however, is perfectly consistent with the conviction, that, in many cases, the remedy thus successfully employed, is attended with ultimately prejudicial effects on the constitution. Why do I then employ it? Because the disease is one of rapid progress; a membranous inflammation is progressing, which will involve the organs to which it is contiguous; my first object is to preserve life, or, if the disease be in the eye, an organ so valuable as scarcely to be inferior to life itself; and where even the most favourable results of inflammation, if it do not destroy the several structures of the organ, properly

so called, will spoil it as an optical instrument, by obscuring certain transparent and refracting media, no less necessary to its functions. Here, then, we meet with a combination of circumstances, which, *in the present state of knowledge*, affords us no choice; and by an easy, but I must contend, a very mischievous transition, we apply the same measures, where we have plenty of time for trying others less prejudicial, and which, on trial, will be found, in many cases, most completely successful.

If, for example, the case be disorder of the liver, we are too apt, on finding certain doses of mercury ineffectual, to employ larger and larger, when we ought to try to work the liver by exciting organs with which it has a known tendency to sympathize; practically, we sometimes aid the effect of this very remedy by means addressed to the skin; as in the confinement of the patient to a certain temperature. But, although it would be wrong to recommend any thing at present, which should delay measures which experience has shewn to be capable of producing desirable effects on the minute

vessels of the body in active inflammation, threatening alteration of important structures; yet, in more chronic forms of diseases, much more good may be done by measures less prejudicial than is generally imagined; of which the following case is an example.

A man applied to me, at the Finsbury Dispensary, with a state of eye characterized by the following symptoms. The cornea was slightly cloudy, so was the pupil; he saw every thing as if covered with a cloud; had some pain in the head, and rather a dilated pupil; the eye generally, wanting expression. He had applied to me two, if not three times before, at intervals of about twelve months; and on each occasion, after a few preparatory measures, he was cured by the cautious application of mercury, so as to affect the mouth. On the last occasion I told him, that, although I had relieved his symptoms on former occasions, it appeared to me that I had not effectually attacked the root of the disease, and that, as his attacks were always excited by cold (for aught I knew to the con-

trary), the very medicine I had given him might render him susceptible of these relapses ; that, if he would steadily persevere, I would try to relieve him without any mercury at all ; that success would be doubtful, and that there would be no chance of it unless he agreed implicitly to follow my directions. I then put him on a very cautious diet. He had been accustomed to drink three pints of porter daily, but no spirits. This I *gradually* diminished to half a pint ; I paid particular attention to his bowels, and to his skin, so far as to make him wear *very* warm clothing, and not to use the organ more than actual necessity obliged him to do ; as, in taking his meals, or his exercise.

During the first three weeks, there was no perceptible improvement in the eye, although his own report was that he was better. In about seven weeks, however, he was perfectly well. Here was a state of eye not only threatening organic changes, but one in which mercury is known to be especially beneficial, and yet it was relieved without his taking a grain of that mineral,

or any other medicine but aperients, and those of a mild class. Can any one doubt that this man will be a great gainer? although the proof will probably be negative, and shewn in my not seeing him again. But if he is again attacked, will not the discovery he has made be in all probability of still more value to him? Every body knows how exceedingly irregular some Dispensary patients are in their attendance; and I have often obtained very valuable information in this way, either by discerning Nature's processes when left by accident more to themselves than we are accustomed to leave them; or, on the contrary, the surprising effects of treatment directed to the general health, instituted with a view of preparing patients for the more auspicious employment of those remedies which our present experience adjudges to be best for the respective complaints. I could illustrate this by facts which alone would make a small volume; but, at the risk of *again* digressing, I will relate two.

Some years ago, a lady brought to me her sister, who laboured under a variety of

symptoms; the more prominent of which were, irregular and deficient catamenia, pain in the head, fitful appetite, costive bowels, cold extremities, and continuous emaciation. The quantity of her food had been greatly increased, and, to meet an habitual craving, that came on at uncertain intervals, she was desired, by a physician in very large practice, to take biscuits to bed at night. She had had a great deal of advice, and I felt very diffident about the case, having then had but little experience; and the more so, as there was nothing surgical in it. I very frankly expressed these feelings; and, also, my respectful dissent from the treatment which so distinguished an individual had employed, as far as regarded the digestive organs. That I thought the various remedies which she had taken to restore the periodical secretions, which I believed to be very proper for that purpose, could hardly be said to have had a fair trial, with such a condition of digestive organs. That, therefore, I should recommend the renewed trial of these, when the state of the stomach and bowels should have become improved. To effect this object,

I recommended mild, but efficient aperients; great warmth to the skin generally, and the feet in particular; and a *very* moderate quantity of plain food, three times a day. Care was taken to keep the bowels regular, and not to give aperients unnecessarily. She was also enjoined to take exercise. She followed this advice; but she soon improved so rapidly, that I relinquished all idea of employing emmenagogues; which, from the evidence of partial circulation, co-existing with amenorrhœa, seemed to be the proper remedies, and which had been before unsuccessfully employed.

Recently, a gentleman consulted me for a very complicated state of ailments, which he regarded as the consequences of a gonorrhœa, which is the only one other case I will now mention in connexion with this point. He had a slight discharge, a small, sinuous, sore in the groin, the remains of a suppurating gland of some months' duration. He had pains in his limbs, with some difficulty and "burning" in making water; tongue furred; bowels open, but not without medicine; appetite moderate. He was a very

fine young man, but looked pasty and ill; and, although he had walked but a short distance in coming to my house, and said he did not feel nervous; yet his pulse was exceedingly hurried. His idea was that he had stricture; which I told him was not unlikely, but that his health was evidently so disordered, that it would be injudicious to treat his mere local maladies, until his health could be somewhat restored. This was accomplished by a precise diet, more accurate attention to his secretions, and by the subsequent habitual use, for a short time, of a tonic aperient. Those measures which I had intended at one time to adopt, for the relief of his local maladies, all proved unnecessary. The erysipelas subsided first, next the urinary disorder, and subsequently the *sinuous* sore in the groin healed. I could relate many analogous cases; but it is unnecessary. But to return to the consideration of mercury. Can any one doubt that it is of the first consequence not to employ this remedy unnecessarily? I suppose not. It is well known to be occasionally productive of bad consequences; but it is not so generally admitted, that mercury will

occasion complaints not distinguishable from syphilis, and which are often treated as such by the administration of the very remedy which produced them. This has been long suggested by some surgeons, but the proofs of it have been held as insufficient: because they have occurred in persons who have had syphilis; or, what equally obscures the reasoning, in persons who have had ulcers, the nature of which had not been ascertained; and further, it has been said, that if mercury did so produce such disorders, we should have these effects occur from it when employed for other diseases. This might, were it necessary, have been partially answered by the well-known fact, that mercury is administered under circumstances of much less caution when exhibited for syphilis, than when given for more serious, or rather more acute affections. In syphilis, one patient takes unnecessarily large doses, under the influence of apprehension; another, scarcely altering his mode of living in any way; and a third, following the directions of some ignorant empiric. On the contrary, in serious inflammatory affections, persons are

generally confined to the house; they are kept in an equal temperature; their living is, for the most part, necessarily characterized by considerable restriction. To all this it may be added, that the extreme employment of mercury for inflammatory affections is comparatively a recent practice. But whatever might have been heretofore said in answer to those who oppose the opinion that mercury will produce the diseases in question, it is in my view no longer necessary; for I have met, within the last twelve years, with many cases where patients have had no syphilitic complaints whatever; but who, nevertheless, had taken mercury for other maladies. It is now, certainly, not less than ten years ago, that I mentioned, at the Med. and Phil. Society of St. Bartholomew's, that I had then under my care (as it happened) no less than six cases of patients with diseased bone and other symptoms not distinguishable from syphilis, who declared that they had had no venereal affection; and whose veracity seemed to challenge confidence, from their saying that they had been severely salivated; some for diseases of the eye, and some for

affections of the liver. In reply to some questions from my friend Mr. Langstaff, I stated that it would give me much pleasure to shew the cases to any gentleman who might feel desirous of investigating them; and probably some who may read these remarks, will remember the fact and the cases. I have never, indeed, since had so many at one time; but I have been seldom long without at least one in connexion with this subject; forming a class of cases which are not only very tractable, but which seem to me to owe their cure to constitutional treatment. I will give an example or two; but will not further anticipate what I am desirous of contributing (if I can confine it within proper bounds) in the form of a paper to the Roy. Med. and Chir. Trans. Different cases illustrate different points: the following was to me very impressive.

A gentleman applied to me about the latter end of the year 1828, in consequence of the following symptoms, which he said had not only resisted every measure instituted for their relief, but that he was growing worse and worse: and that, in addition to his

other calamities, the irregularity occasioned by his illness in the execution of the duties of a public appointment, threatened shortly to deprive him of his means of support. He was brought to me by his brother, who, in a private interview, said that the family were desirous of knowing my opinion as to whether any thing could be done; but that this step was taken more as a satisfaction to their future feelings, than from any hope that the case was susceptible of cure or amelioration. When I saw the patient, nothing certainly could be more deplorable than his appearance. He was greatly emaciated; he looked pale and exsanguous, and his respiration (and, as I thought, his skin too) exhaled a most unpleasant odour. He spoke like a man whose throat had suffered, and was still suffering, from ulceration; and several sores were present about the margins and inner surfaces of his lips and mouth. These had been preceded by other ulcers, which had healed, and their cicatrices had so pursed up the mouth, that, when I desired him to let me see his tongue, he could expose but a small portion of it.

The same state of parts prevented me from obtaining a satisfactory view of his throat. He had great pains in his limbs, especially at night; scarcely got any sleep. His appetite was irregular and deficient, and his bowels also: the secretions from them, as I afterwards found, were unhealthy, and offensive to the last degree. He had a very large sloughing sore near the outer ankle, which had been preceded by great pain, and now presented a very unhealthy surface; partly ulcerative, and partly sloughing, and discharging a very fetid and acrimonious ichor: it was also exceedingly painful. His circulation was hurried and irregular; the pulse being soft, frequent, and feeble. Altogether his appearance was so wretched, and his constitution so broken, that I certainly thought he could never recover.

So familiar had I become, at that time, with the effects of mercury, that, on my first seeing him, I pronounced at once that he had taken large quantities of mercury; but this he resolutely denied. I then said, you must then have had syphilis; but he also affirmed as strongly, that he had never been

affected by any thing of the kind : he had some confused recollection of having had, a great many years ago, a small discharge from his urethra, but not any thing which required particular treatment or attention. I told him at once, that I did not understand his case ; that I had seen individuals labouring under symptoms so similiar in all essential points, which were clearly the result of mercury, that I felt myself justified in imputing his to the same cause ; that his not having had syphilis did not surprise me, as that only further confirmed my convictions with regard to such cases ; but that his not having taken mercury, rendered his complaint to me inexplicable : that, therefore, all I could say was, that being certain that very similar symptoms were frequently caused by that mineral, and that they were perfectly relieved in most cases by a treatment which I recommended, I knew nothing better than to recommend its adoption to him. I further stated, that very similar conditions of system were sometimes produced by very dissimilar causes, and that might possibly be the ex-

planation of his case* ; that I did not pretend to understand it ; but that I knew of nothing better than attention to his general health ; a course of medicine such as I would prescribe, and the avoidance of any thing in the shape of mercury.

I shall not soon forget the perplexity I felt from this case. I had long thought that I knew the cases resulting from the abuse of mercury ; and to find myself apparently deceived in what I should certainly have called a well-marked example, was a source of great annoyance. Impressed with this feeling, I had allowed him to tell me that he had taken large quantities of De Velno's Vegetable Syrup, during a period, with irregular intervals, of about two years, without it ever occurring to me of what this nostrum is composed : but relating my chagrin to a medical friend, he immediately suggested its composition (believed to be oxymuriate of mercury in some mucilaginous menstruum), when the difficulty vanished. I

* I have since met with a case which confirms this view.

now set about attending the case with better heart, and in about six weeks had the great satisfaction of seeing my patient,—to the astonishment of his family, and, I willingly add, my own,—perfectly recovered. I began, first, by prohibiting wine and spirits altogether ; in small portions of which, diluted with water, he had hitherto indulged. His bowels were freely evacuated by jalap, ipecacuanha, and ginger, and he took small doses of manna and senna in bitter infusions, to keep them acting regularly. Nevertheless, as the secretions were exceedingly fetid and unhealthy, the powders were occasionally repeated, and he took camphor and opium at night to procure sleep. This was subsequently changed for conium and hyoscyamus, and the narcotic, by degrees, relinquished altogether. The narcotics, however, did him little service, until his secretions were improved; and then I soon found that they were unnecessary. His diet consisted of milk, eggs, ground rice, potatoes, arrow root, sago, and tapioca. His meals were moderate in quantity, and taken at periods of about five hours. He took the

fluid extract of sarsaparilla in the proportion of a dessert spoonful to about three parts of a half-pint tumbler of water, three times a day. He had a common gargle of *infus. rosæ* for his throat, and the sore in the leg was poulticed night and morning, and previously washed with a weak solution of nitric acid. In about seven weeks he was quite recovered from all his ailments, except that his strength was not quite restored. Some difficulty, I recollect, occurred in the management of his bowels; but the case did well in the time mentioned, and I now occasionally see him walking about strong and well.

The following is another case, bearing on the same subject. A man, being out of health, but having no local complaint but a boil, applied to a physician, who ordered him some aperient medicine, and the compound calomel pill. Having, as it appeared, rather an unusual susceptibility to mercury, he had taken very few of the pills before he found himself salivated. In this state he walked from Westminster to Hoxton in the rain, and got completely drenched to the skin; the

consequence was, that he became attacked by pains in his limbs, and sore throat, which, to use his own expression, "had several holes in it." He now consulted an eminent surgeon, who gave him mercury to salivation again; and (as often happens) with some benefit to his throat, which he said got much better; but, as he was not well, he relinquished his attendance on the surgeon in question, and, after a short interval, applied to me. He had still ulcers in his throat and pains in his limbs; but as I thought the case very clearly the result of mercury, or of the agency of cold, applied during the time that he had been affected by that mineral, I did not think of prescribing it, although he had a scaly eruption, which some would have thought a suspicious circumstance. Attention to his general health, a milk diet, and abstinence from mercury, with the regulation of his secretions, in about a month restored him to his usual health; and as I have not since heard from him, I presume that he has had no return of his complaint. Now, nothing happened here but that which is common

enough, viz. inflammation and ulceration of the throat, excited by cold, and accompanied by pains in the limbs ; but the sore throat presented characters allied to, or identical with, those of syphilis. Now, Mr. Abernethy shewed long ago, that ulcers simulating syphilis, occurred in other parts as well as the throat. When the throat is affected, as in the case just referred to, by the influence of cold, the common, and, so to speak, the comparatively healthy sympathy, is common inflammation, or, if violent, perhaps abscess. But would it have been reasonable to have expected, a priori (the exciting cause being the same), a specimen of healthy sympathy in a system, affected by mercury to salivation ? Do we, in fact, find healthy inflammation any where else when the inflammatory actions have been excited during disturbed conditions of the system ? Undoubtedly not. Do we not rather look for erysipelas, or some other of its numerous and undescribed varieties ? But the endless varieties in the appearance, progress, pain, and other characters, resulting from inflammatory action, connected

with disordered health, are no where better exemplified than in the common diseases of the extremities.

I would by no means represent these cases as the result of mercury acting in virtue of any *specific* property it may possess ; that appears to be a hazardous conclusion ; it seems quite as probable that it may operate by that disturbance of the general health, which it may have the power of producing, *in common* with many other causes. That it may more *frequently* produce disturbance of a given kind than other causes, may happen from its powerful effects on the body, and from the great extent and frequency of its administration. But that conditions of the system, not distinguishably different from that produced by mercury and syphilis, may result from influences of a different kind, the following case (as I long ago thought, see page 206) sufficiently evinces. I have the notes in full, taken by Mr. Percival Leigh, a very zealous and intelligent student ; but a short abstract will convey its important features. About fifteen months ago, a man applied at the Dispensary with

a large and deep sloughing ulcer of the throat, not distinguishable from those said to be syphilitic. He had great pains in his limbs, and was exceedingly out of health; his bowels particularly costive, and his tongue particularly foul. He had been ill already some months, and had been under the care of a surgeon, who gave him mercury, and who is reported to prescribe very little of that mineral in such cases, which I mention, because it proves the more emphatically that, in his opinion, the sore had the syphilitic character. However, the man, finding that, on his mouth becoming sore, he got no better, but, indeed, rather worse, relinquished his attendance on the surgeon in question, and, after remaining a short interval without any advice, applied to me. Now it was quite certain that the mercury, here, had not produced the sore, because the sore preceded its administration. When I saw him with such a tongue, I thought of nothing but endeavouring to improve his general health. The treatment was conducted chiefly by Mr. Leigh, under my superin-

tendance; consisting of spare diet, aperients, and decoction of sarsaparilla. The throat did not mend materially; but, on the other hand, it did not seem to get materially worse. Nothing gave us more trouble than his bowels, which were pertinaciously constive, so as to induce us, at last, to relinquish all remedies except aperients. At length we succeeded in procuring numerous and free discharges from the bowels, by means of aloës and soap, given in large doses, three times a day. It was surprising to see the effect of this measure; the throat healed rapidly, without further trouble. About twelve months after this, that is, about two months ago, or hardly as much, this man applied again, with a similar affection, and with a similar state of system, and of bowels especially. Although we had taken notes of his case, we did not recollect the particular circumstances; and therefore he was placed on a plan directed to his general health, and the regulation of his secretions. We soon found, however, that the same difficulty occurred with regard to the bowels; and this recalled to our memories the key

to his case. On referring to the notes, we employed the same aperient as before; on which his throat got better: but he would go out, contrary to my orders; so that, partly from his bowels, perhaps, having become accustomed to the remedy, and partly from unfavourable influences on the skin, his bowels would not act so regularly as before. I now told him, if I found him disobedient again, I would relinquish my attendance. I therefore confined him to his room, and made him take a vapour bath; his bowels now not only acted more kindly, but with a milder remedy, castor oil, which was prescribed by Mr. Leigh. His throat now began to mend rapidly, and this day (December 10), on examining him, I found a great part of a large cavity filled up, and the whole covered with healthy florid granulations. This man's complaint seems, on both occasions, to have been excited by cold acting on the skin, rendered susceptible by its sympathy with disordered bowels. In his avocation (an ostler) he is much exposed to cold late at night, and washing horses' feet, &c. in the day. I have a very

instructive case now under my care, produced by mercury, where that mineral has been recently administered for a cerebral affection, consequent on a shock felt by the patient, having his son brought home drowned ; but, as I hope to discuss the subject of mercury in a distinct paper, for the present I will content myself with the announcement of the fact, that mercury does unequivocally produce diseases which, from mistaken views, are again treated by mercury ; and in cases where there is no evidence of there having been any syphilitic affection, much less where it has been administered for that complaint, but in cases where it has been administered for other diseases. The unnecessary employment of powerful remedies has been, in my experience, more frequently exemplified by mercury, because it is more likely, perhaps, than other remedies, to fall within the surgeon's observation ; but I am far from believing that the remark applies only to that mineral.

On the contrary, I believe many other remedies are occasionally resorted to,—I

will not say in cases where they may not be capable of affording relief, but where they are as yet unnecessary. All this may seem more the province of the physician than the surgeon; and certainly the multiplicity of objects demanding the attention of the surgeon, might well excuse him from extending his views beyond them: but, in the present state of science, a man must become a medical surgeon, or no surgeon at all. The well-established dependance of surgical diseases on varying states of the constitution, no longer allows it to be considered as a debateable question. The catalogue of local maladies is every day diminishing, and the question is daily taking another form; being not whether local diseases do, or do not, depend on constitutional causes; so much as, which is the most enlarged and best mode of directing the constitutional treatment of them? As, in this question, no single organ is of more importance than the stomach, hence that viscus becomes necessarily one of the principal points of study, and this gives the surgeon the deepest interest in every thing

appertaining to the effects produced on it, either by food or medicine. So far, therefore, from having any wish to travel into another branch of science, I always feel that, in considering the stomach, I am but cultivating one of the most difficult and important points of my own profession; and, if I mistake not, before science can be materially improved, instead of talking of divisions in the profession, there must be a much closer intermixture of the study of surgery by the physician, and of medicine by the surgeon, than we are at present accustomed to think necessary.

The following case appears to me interesting; and the more, from this circumstance:—that I met the gentleman a few days since, and said that I intended to mention his case as a good illustration of what might be done by attention to the functions of the stomach, and as one which, had it been *so* relieved, would have been put down, at the respective periods, as a successful example of the effects of prussic acid and kreosote; when, for the first time, he informed me that he had taken both

those remedies, without benefit. About five years ago, a medical friend of mine, about forty years of age, having taken mercury, under my advice, for a threatening amaurotic condition of the eye, and being recovered from that, complained of weakness and sinking about his stomach, and occasional irritation in the organ. He was recommended to be careful in his diet, and to attend to his secretions. He said, at the time, he had been recommended prussic acid, or at least so I understood him; but it appears now that he had already taken it without benefit. I recollect dissuading him from it, and stating, that as he had always been subject to attacks of disordered biliary secretion, and irritable stomach, it was likely he was suffering from the mercury; but, as that cause had now ceased, that, with the cautions I would recommend, he would soon recover. I added, you must admit that prussic acid is not a negative remedy; that, if it be not necessary, it must be likely to be prejudicial; and if it be necessary, said I, just think what state of stomach that must be, to require prussic

acid to put it right. Well, the arguments which I had intended to prevent him from taking the prussic acid, probably served to make him relinquish it. Be that as it may, he got perfectly well, by attention to his diet and bowels, and that in a very short time.

The same gentleman was attacked, last year, with symptoms of a more serious character, and, as I think, beginning in disorder of his liver; but this was not to be made out clearly. He had considerable pain some little time after he had taken food; and this became pretty constant. Subsequently, it was followed by vomiting about two hours after he had eaten; and this had led him to consult me; the vomiting having occurred in the previous four days in succession. I heard nothing of kreosote; but it appears, by what he has recently informed me, that he had already taken it. I felt very much interested in the case. I was therefore earnest in my endeavours to impress him with the importance of attending to my directions. I said it is plain that your stomach will do very little; and therefore the first thing is

to give it very little to do. Further, this little should be given in very small quantities at a time ; and, if it be necessary, in order to get the nourishment required, to take it at five or six times in the day ; adding, this is far less an evil than putting more at any one time into the stomach than it is capable of digesting. He accordingly very steadfastly adhered to this plan ; the quantity of food taken at any one time being very small, and consisting of dry toast, bread pudding, and weak broth with bread ; but avoiding any *considerable quantity* of fluid of any kind. This was on Monday. On the following Thursday, he was so much better, as to be really very comfortable ; and asked my advice about the propriety of eating a mutton chop. I told him I thought it involved a risk, which, in so early a stage of his treatment, it would be imprudent to incur ; nevertheless, on Saturday, he ate the mutton chop. On Sunday morning, I was sent for from the country, with a message saying he was very ill. When I arrived in town, I found that he had Dr. Campbell, of Duke Street, and Mr. Wilson,

of Northampton Square, with him; that they had been sent for in the night; that they found our patient in great suffering, and that he was labouring under a severe attack of gastritis; that they had applied leeches largely, and a blister. He was now much better, free from pain, but felt very weak; his pulse, however, was very soft; his tongue white, but moist; and his skin comfortable, and in rather profuse perspiration. I had, of course, nothing to say, but to desire him to resume his former plan, and, for the present, with still greater restrictions as to quantity. He took diaphoretics, with a view to the sympathy between skin and stomach, and occasional mild doses of calomel, to promote biliary secretion. In a very short time, about ten days, he got perfectly well, with no other remedies, except a little infusion of gentian, which I really forget whether he took or not, but which he had Dr. Campbell's and my own permission to do.

I have recently seen reported, in the public journals, a case of gastrodynia, as it is called, treated by kreosote, wherein, how-

ever, the remedy was not, as it appeared, entirely successful, but at the same time exhibited in large doses with considerable benefit. The case, however, in question is one which I have seen, over and over again, relieved by attention to the functions of the stomach, and a particularly well-marked one, of one form of indigestion. The report stated that the woman complained of pain always after she had eaten; but there was reason to believe that when the stomach was empty she was perfectly easy. I know that, in many cases, relief can be obtained by various stimuli, and especially by brandy: but I can neither approve of the brandy nor the kreosote; because I am certain that they are both often unnecessary, and that at least the former proves injurious.

Before I quit the subject of attention to Sympathy, as enlarging the constitutional treatment of local diseases, I wish to add a few remarks with reference to the influence, which I trust it will be found to have in expediting the successful treatment of diseases of joints; numbers of which are annually amputated, as I verily believe, without ne-

cessity. I have seen a great number of cases of diseased joints,—those who know how I have been situated are well aware it must be so; but it is comparatively seldom that I have had occasion to amputate a limb; and where I have been so obliged, it has never been but for one reason; viz. that the local disease was so seriously disturbing the patient's health, that I could not persevere in my efforts for preserving the limb, without endangering life. Comparatively few as those cases have been, I believe that, had I always known that which I now do, their number would have been further diminished. I cannot say, of course, what has been the precise pathological condition in different cases, because nothing but dissection could absolutely prove it; but there are no affections of joints (malignant diseases excepted), no matter in what structure they may commence, or how many they may ultimately involve, which it is not my firm persuasion are well within the reach of treatment, and in the vast majority of cases: whilst not a year passes, that I do not see more or less examples of amputations,

wherein I should not even begin to think of such an operation. Surely, if this be the case, and I have recently had the satisfaction of finding that my experience is by no means singular, many joints may be saved which we are now under the humiliating necessity of removing—as I can illustrate with reference even to cases wherein I have myself recommended the amputation of the limb.

There are two especially which made a very deep impression on me. Both the cases in question were seen—the one by Mr. Langstaff and Mr. Kingdon, the other by the latter gentleman. The first case was that of an individual residing at Pentonville, about fifty years of age, who had pain and inflammation in his knee, of some months' standing. Matter had formed, and several apertures led down, as I supposed, to diseased bone; but I did not examine it by the probe, as the ascertainment of the fact does not, in one case in a hundred, alter the treatment, whilst the smallest irritation should be avoided. That the bone, however, was affected, was subsequently proved by several portions being thrown off by exfoliation,

and, as it appeared, chiefly from the end of the femur. His diet and general health were particularly attended to, and the knee kept in splints. However, he occasionally had considerable pain; and this, operating, as I have since had reason to believe, in conjunction with moral causes, impaired his general health so seriously, that I felt myself at length reluctantly obliged to propose the removal of the limb. It was on this occasion that Mr. Langstaff and Mr. Kingdon saw him, and that they coincided in my views. The man, however, stated that he thought his health so reduced, that the shock of the operation would be too great for him, and that, although ready to submit to any plan I proposed, he would not have his limb removed unless I could speak with considerable confidence on that point. I told him all I knew with regard to similar cases; that, in fact, where the health was sometimes most seriously affected, the removal of the local malady proved most beneficial; that patients rose buoyant and soon recovered; that if the limb were my own, I would not for a moment hesitate in having it removed; that, at the

same time, the good effects of which I then spoke were not invariable; and that, to speak with the confidence which he required, as to the result of an individual case, was impossible; but all I could say, was, that I verily believed that he would do perfectly well. The little reservation which I felt it necessary in sincerity to make, determined him against the operation; and, being fully satisfied of his determination to keep his limb, I accordingly renewed my attention, I need not say how anxiously; and although the case was wavering and tedious, yet ultimately he got perfectly well. His joint was ankylosed of course; but it was straight and useful. The other case to which I have alluded, was of a different kind. A woman, about thirty, sent for me on account of a diseased knee; and, when I saw it, I thought of nothing but amputation. The history and appearance of the joint was that of a scrophulous affection; her health was very much impaired; there was evident effusion into the joint, and considerable enlargement of the head of the tibia and condyles of the femur; and the destructive processes appeared to have so

destroyed, or softened the restraining textures of the joint, that the femur and tibia were far from being in correct apposition, the former appearing to be on the inner side; I proposed a consultation to determine the question, whether I should amputate the limb at once, or whether it would not be better to endeavour to improve the health a little, at all events, before I removed the limb. Mr. Kingdon supported me in the latter view, but had no idea whatever that the limb could be saved; neither had I, although it did so happen, that on leaving the house, I carelessly said, “and if her health gets better, perhaps some favourable change may take place in the limb, and we may save it after all.” Now this woman got perfectly well, under a treatment which combined great attention to her diet, her secretions, and keeping the part absolutely motionless by splints—so much insisted on by Mr. Abernethy. I have seen many cases tending to the same point; but these particularly struck me, because I had in both recommended amputation myself. Now I cannot say that, in either of these cases, the

success turned on a specific appeal to any particular sympathy, because in neither case was that difficulty presented which required it; but I mean to observe, that I treat every case with a constant attention to the sympathies, and, in my endeavours to put any particular organ right, am constantly watching the conditions of organs with which that one may sympathize, and ministering to their functions where they evince failure, in some way or other, in order that they may not impede the restoration of the primary organ by their sympathy, if they do not promote it: but I mention these things more, because a sedulous attention to them may render the restoration of diseased joints *quicker*, than because the cases are difficult; but, the processes in the parts affected being necessarily slow, it is to be feared that the duration of the task sometimes engenders a despair of its execution; and that if we could quicken the processes ever so little, the practice of saving joints might be more general. As I know of no mode of doing this, but by restoring the general health, and keeping the part quiet, so I know of no other mode

of accelerating the former object than a sedulous observation and careful attention to those organs which are alike important, on account of their respective functions, and of their sympathetic connexion with each other ; I mean particularly the mind, the nervous system, the skin and respiratory organs, the chylopoietic viscera, and the kidney.

In concluding my remarks on this important and difficult subject, let me guard myself from appearing to favour that practice, which is characterized by a mere ministering to symptoms ; than which, I believe, nothing is more prejudicial or short-sighted, whilst it has the additional objection, of usually operating to the exclusion of measures of more real and permanent benefit. If some of my readers are surprised at a remark occasionally let fall with regard to the present practice, I need only ask them to consult the various periodicals, and they will probably find that the observation has not been made without reason. In surgery we have very striking proofs of the disadvantage

of directing our measures too exclusively to a particular symptom, because it may be the more prominent. In the occasional repercussion, as it is called, of cutaneous diseases, and on the healing of certain ulcers by means which minister mechanically to the vessels of the part, if this be accomplished *without attending to the state of the constitution*, every one knows that it is frequently followed by affections of some important organs, which in some cases have preceded the local affection; so beautifully do the laws of Nature teach us, if we would but attentively observe them. The man who is a confirmed dram-drinker, and he, who convinced of its deplorable tendency, resolves gradually to wean himself of a pernicious habit, both direct their actions to the same organ; so does he who takes the alkali to correct the acid; and he, who by an enduring self-denial, determines to avoid those articles of food on which the formation of the acid may depend; they both may be said to minister to symptoms,—but I need scarcely say in how different a manner.

In treating by the sympathies, it is not meant that the *greatest* attention should not be paid to the organs *primarily* affected; but when, if, from any of the causes mentioned, our measures prove unsuccessful, then appeals may be made to other organs; and first to those which evince sympathy with the primarily affected organ*; but if, so far as we can judge at least, an organ does not appear to sympathize at the time, still, if it be known to have an established excitable sympathy with that which is primarily affected, as the stomach and liver, liver and bowels, or these with the skin and kidney, although such organs may evince no disorder, still effects on them will often produce markedly beneficial results on the primary organ. During these attempts, the

* I should observe, that sometimes an organ may be very markedly sympathizing, but the patient's attention will not be drawn towards it, in consequence of the more prominent affection of some other organ. In this way I have often repeatedly asked a patient if he had any other symptom of which he complained; and being answered in the negative, immediately detected others by questions directed to the sympathies of particular organs.

treatment of the primary organ should be negative, as it were ; that is, confined to avoiding any injurious impression. It is very interesting to see how Mr. Abernethy was led to this, when the organ primarily affected was one, our means of influencing which are limited ; and of which his clear perception led him (in considering the effects of the stomach or the digestive organs) to say, that, in administering to the nervous system, we can at least take care that it receive no additional disturbance from organs so wont to disturb it as the chylipoietic viscera. I hope I have said enough to prevent misconception of my meaning, or to be understood, while I am pleading for more enlarged views of disease, to inculcate a practice which merely ministers to symptoms ; one to which, it would be in vain to deny, our total ignorance obliges us occasionally to fly ; but which, in its most common adoption, is every way objectionable ; it is short-sighted as to the causation of disease, it is generally injurious in its remote consequences, it is the very essence of quackery, both regular and irregular, and never, I be-

lieve, effected three real and sustained improvements from the days of Hippocrates to the present time ; whilst, by supplying the place of more enlarged views, and especially those which should constantly regard relief, or rest from the functions, of the disordered organ, as the great fundamental principle on which its permanent tranquillity is to be established ; it is not only a bar to improvement, but is constantly casting the shadowy veil of empiricism over the operations of Nature.

THE following discourse, of which a few copies were published last year, chiefly for the purpose of private circulation, having been favorably received, I have been emboldened to put it now in a more public form; the more, as it is, in its essential parts, but a continuation of the argument in favour of the constitutional treatment of local diseases. As I could not add to its force without enlarging the volume, and materially altering its whole structure, I have ventured to allow it to preserve the form in which it was delivered; and not without the hope that the preceding remarks on sympathy, and the discourse, may mutually support each other. The reader will readily for himself separate the argument, and the endeavour to correct some misapprehensions which exist with regard to the opinions of Mr. Abernethy, from the less essential parts of the Lecture; which, I may add, was Introductory to some Lectures on Clinical Surgery.

“Hujus enim facta, illius dicta laudantur.”

CIC. *de Amicit.*

GENTLEMEN,

THE subjects most appropriate for the introduction of Surgical Lectures, whether Clinical or Systematic, have been

so frequently and so ably discussed, that an introductory lecture has become a task at least somewhat embarrassing. Truths, however important, when often repeated, appear trite and uninteresting, unless invested with some novelty of colouring or position; if this be not impracticable, it is certainly difficult, as there seem scarcely any which tortured ingenuity has not already forestalled.

The history and progress of our art, in all its interesting detail; the commanding usefulness, which justly places it so high in the scale of human knowledge; the exalting nature of its various studies, in the impressive recognition which they constantly afford, of boundless wisdom, goodness, and power; the dignified and deep responsibility of its several duties, and the moral beauty of the kindly affections which they are calculated to engender, have been repeatedly described and largely expatiated on, with all the interest and ornament which learning and eloquence could command. If a Lecturer would view the subjects usually selected on such occasions as common

property, and treat them in his own manner, he must be vain indeed if he fear not the disparagement consequent on a busy comparison with some more distinguished predecessor. Introductory Lectures, however, if not required by necessity, are at least strongly suggested by custom; I shall therefore preface the Clinical Lectures which I am about to deliver at this Dispensary, by a few preliminary observations. For the reasons implied in the foregoing remarks, I shall, as much as possible, avoid the path so frequently trodden on such occasions, and make the present address subservient to the general business of the Course. About to be fellow travellers, as it were, I would unfold to you at least a portion of the map of our intended journey,—point out to you the general bearings of the course I propose to take,—and offer such suggestions on the mode of proceeding, and the guides we should chiefly regard, as seem best calculated to prevent your passing, unnoticed, any thing which is really worthy of observation. Leaving metaphor, I would present you with at least a general

view of the kind of surgery which it is my object to teach ; the principles on which it is based, and the individuals to whom we are mainly indebted for them.

If, Gentlemen, we take a retrospect of the history of Surgery, we scarcely recognize it as a science previous to the time of the Hunters and Baron Haller. Before their time, it was an useful art certainly ; and although it might have aggravated some of the maladies which it was intended to relieve, still, on the whole, it effected a considerable diminution of human misery ; but it scarcely deserved the name of a science. I will not say that there were no obscure evidences of a dawning existence ; but it was chaotic ; without form ; and void of any order, which could afford a resting place for the eye of Reason, whence she could contemplate the various masses which surrounded her ; much less was there any light to facilitate the arrangement of the several objects, so as to render them available portions of human knowledge. It appears to me, to have been reserved for the genius of JOHN HUNTER, to supply the

light desired—to penetrate the dark void—and to elicit those splendid results, which, whilst they have perpetuated his name in the recollections of an enlightened and grateful posterity, have rendered medical science, of all others, the most useful in diminishing the sum of human calamity, and have stamped it as such, with the impress of his own immortality.

We cannot, indeed, be insensible to the merits of his highly gifted contemporary, Baron Haller. We cannot be unmindful of the extraordinary example which he afforded, of that mass of information which may be accumulated by a single individual, of his voluminous writings, nor of his acquirements in almost every branch of human knowledge—which severally claim our respect, admiration, and gratitude. Dr. William Hunter, also, is entitled to no small share of our regard; for, to him we are, doubtless, indebted for first fostering his brother's rising genius; for supplying him with the means for its cultivation, and, not improbably, with those necessary for his support,—anxiety concerning which,

will too often obtrude itself on the aspirations of genius ; and under whose withering influences it has not unfrequently perished or decayed. The Museum of Dr. William Hunter*, whilst it constitutes his best eulogium, shews how invaluable an assistant he must have been to the early efforts of his distinguished brother, to whom we are mainly indebted for first broaching those principles on which our present surgery is based.

Before the time of John Hunter (notwithstanding the important discovery of the circulation), a knowledge of Surgery might be said to have consisted in the recollection of a vast number of facts, of which neither the real importance nor true connexion was at all understood. No idea seems to have been entertained of that comprehensive generalization of the multitude of dissimilar occurrences, constituting the phenomena of disease, which now refers them, for the most part, to a few known laws, or to a few physio-pathological principles, legitimately

* Now at Glasgow.

deducible from them. The qualifications which were thought chiefly essential in the Surgeon, appear to have been little more than a good eye, a steady hand, a retentive memory,—with some opportunities for exercising them. We find a great deal said with regard to the physical qualities; of the manus, strenua, stabilis, nec unquam intremiscens; but when the head was to be consulted, when any thing beyond the reach of the external senses was to be considered, we are reminded of the necessity for a physician. It had not been discovered, that a knowledge of the animal economy was equally necessary to the physician and surgeon; still less had it been conceived, that the study of surgery not only affords the clearest evidences, but is almost the only mode, by which we can approach any thing like demonstration of the laws of vital action, or by which we can apply them to the explanation or removal of diseases.

The character of John Hunter has been so often drawn, that it has become familiar to most of us; hence only a few remarks will here be necessary. He seems to have

been born with a number of extraordinary qualities, which, if they combined not every qualification for scientific investigation, constituted as near an approach to this order of perfection, as we can reasonably expect in man. To a mind characterized by a love of truth, only equalled by his ardour in the pursuit of it, was joined a most clear and penetrating perceptive power ; and, to crown the whole, the most enduring industry. There seems to have been scarcely any process in animal or vegetable life, to which his attention had not been directed : and although it is probable, that the Museum which he left, stupendous as it is, contains but the records of the more important subjects which he had investigated ; yet probably it is the most remarkable work ever achieved by a single individual. To say nothing of subjects which it is almost certain must have occupied his attention, but of which we have no positive proofs,—not reckoning the multiform considerations and reflections, leading to, and arising out of, the preparations which he has left us ; not taking into the account the various un-

published volumes, which were so unfortunately destroyed; but contemplating the Museum as we see it,—whether we consider it, with reference to the investigations of the various processes in animal or vegetable life, of which it affords proofs; the infinitely varied manner in which these are unfolded and exemplified in health or disease, or even the mere mechanical occupation, we at once recognize it as a wonderful example of human talent and industry. When, however, we recollect that the labour was accomplished in the busy hum of a metropolis, amidst various unavoidable interruptions from other important avocations, with the occasional embarrassments of indisposition; and when, lastly, we reflect that the whole was the effort of an individual, whose pecuniary means were often painfully restricted, during a comparatively short life; language supplies no symbol which can adequately designate the depth or variety of our sensations, and we gaze on the vast fabric with silent admiration.

Mr. Hunter, however, shewed that we

are not to expect perfection. I would not undertake to say, that the vigilant caution which so constantly presided over his labours, and which, examined with such scrutinizing accuracy the legitimacy of his conclusions, might never have slumbered* during a life of such exertion : but the point to which I wish especially to direct your attention, was, the limited power which John Hunter possessed, of conveying his ideas to the minds of others, so as to produce a correct translation of his own impressions. His power in this way was indisputably restricted ; and many of the circumstances which exemplify this deficiency, at the same time convey its explanation.

A circumstance which adds not a little to our admiration of John Hunter's genius, is, that he was, comparatively, an uneducated man ; and with but little variety of language at command, stood more in need

* It has been thought that Mr. Hunter's reasonings on Syphilis, are not characterized by his usual caution. The progress of science has changed the grounds on which he rested them, certainly ; but they were regarded as determined facts at that time.

of enlarged powers of expression, than most other individuals. His ideas were not only remarkable in number, as arising out of a great multiplicity of subjects; but many of them were altogether new: so that what I have ventured to represent as an original defect, was thus painfully increased by the very talents which accompanied it. John Hunter's works illustrate these remarks. Although we are so impressed with the value of the principles and precepts which they contain,—as to recognize in them the very grammar of medical science; as conveying that which, therefore, cannot be learnt too soon; yet they are scarcely adapted to the early studies of the medical pupil. It is expedient, before the student read the works of John Hunter, that he have some idea, from other sources, what it is that he is to expect; he should know his teacher a little in theory, before he sits down to converse with him in the closet. If then the abstract truth and importance of Mr. Hunter's physiological and pathological opinions, were sufficient to secure their establishment as such; still a practical

application of them, co-extensive with their merits, required the operations of a mind of a different order. A mind which, to coincidence of opinion with John Hunter, should join a perception, no less clear and penetrating than his ; a mind which should be amply stored with enlarged powers of expression, and a ready facility of adapting them to original ideas ;—which, to assist intellects of ordinary or even subordinate capacity, should have also the property of simplifying difficult subjects, of placing them in striking and interesting points of view, and of elucidating them by ingenious varieties of illustration. A mind which, with this sympathy with intellects of common calibre, should combine sufficient grasp to take enlarged views of subjects, and a rapid perception of those points, which might be wrought into practical usefulness, —whose genius should enable it to build on these harmonious structures, the offspring of a creative induction ; and, finally, to display the whole fabric, so as to convey, even to the student, correct ideas of its

relation and bearing on the practice of Surgery.

For the fulfilment of such desirable objects, an individual, especially qualified, arose; and, Gentlemen, I am willing to believe, that before I mention it, you will have anticipated the illustrious name of ABERNETHY. But lest enthusiasm should have wandered from its only safe conductor, truth, let us examine the foregoing sketch, and see if it be overcharged. Could any thing surpass Mr. Abernethy's power of simplifying difficult subjects, if we except the pleasing and happy manner in which he was wont to illustrate them? Where shall we look for that rapidity and clearness with which he seized the difficult points of a question; or for that ingenuity which enabled him to invest every thing with colours, which so often rendered the most dry and uninteresting subjects, at once instructive and inviting? and, with regard to his powers of expression, where shall we find a style which, though not perhaps critically faultless, combined ele-

gance and perspicuity in more successful proportions?

Is it not deeply interesting to reflect, that those powers, the deficiency of which we cannot but lament in Mr. Hunter, should have constituted the *distinguishing* attributes of Mr. Abernethy? Could any thing have been more fortunate for the interests of science, than that chain of events, which determined that the individual thus so expressly qualified, should become, at once, the eloquent expounder, and zealous advocate of Mr. Hunter's opinions? Mr. Abernethy, however, was far from confining himself to a simple exposition of Mr. Hunter's doctrines. He found that the truths discovered by Mr. Hunter, not only coincided with, but often too, explained those which he himself had remarked, if not with the same labour, still with equal accuracy of observation.

To analyse and connect the various opinions of these great men; to shew where they arose out of each other, or where, though of independent creation, analogous truths illustrate the identity of

their views, would be an employment highly interesting, and not uninteresting; but the limits of a lecture preclude any attempt of the kind; wherefore I shall confine myself to those more immediately connected with my present objects.

I need scarcely observe, that Mr. Hunter and Mr. Abernethy were men of deep reflection. They were engaged in a profession, which, had they not been sufficiently stimulated by other, and perhaps higher, motives, of itself, would have occupied them in the daily study and application of the *laws* of life: hence it was only what might have been expected, that they should direct some portion of their considerations to its *nature*. Mr. Abernethy held the same opinion on this subject, as he believed to have been entertained by Mr. Hunter, and he advocated its probability.

To state this briefly: it was, that life did not arise out of organization, or any mechanical arrangement of parts; but that it was some very mobile and subtle substance, superadded *to* organization. The manner in which Mr. Abernethy introduces his ad-

vocacy of such a view, is truly admirable : it is at once simple, modest, and philosophical : terms which were also distinguishingly characteristic of Mr. Hunter's mode of promulgating an opinion. " Since thinking is inevitable," says Mr. Abernethy, " our chief inquiry should be, how we ought to think or theorize ; and, on this point, Newton himself has condescended to instruct us. Our theories, hypotheses, or opinions—for to me all these words seem to refer to one and the same act of the mind—should be verifiable or probable, and should rationally account for all the known phenomena of the subjects they pretend to explain : under which circumstances, it is allowable to maintain them as good, until others more satisfactory be discovered. No man, who thus theorizes, need feel shame in this employment of his intellectual powers ; no man need feel arrogance, for it is acknowledged that his theory is but a probable and rational conjecture. Besides, we never can be sure that the series of facts belonging to any subject is full or complete ; new ones

“ may be discovered, that would overturn
 “ our best-established theories. Upon the
 “ foregoiing terms alone, do I wish to up-
 “ hold Mr. Hunter’s theory of life,” &c.

I will not injure the foregoing quota-
 tion by further remarks on it. Amongst
 many other reasons which induced Mr.
 Abernethy to think in the manner to which
 I have alluded, you will find the following :
 —He saw that life was connected with an
 infinite *variety* of organization ; and hence
 he could not believe that it was the *conse-*
quence of any one of them. If, therefore,
 life were not the consequence or result
 of the molecular arrangement or organiza-
 tion of matter with which it was connected,
 the conclusion that it was superadded,
 seemed inevitable. As its qualities were
 altogether inscrutable, by any power with
 which we are gifted ; impalpable, invisible ;
 but manifesting, at the same time, uncom-
 mon celerity in its actions : so he thought
 that it was something very mobile and very
 subtle. Now, if there was anything un-
 reasonable in this view, or anything unpro-
 fitable in its promulgation,—and it is diffi-

cult to perceive either one or the other;— still it constitutes “the very head and front of his offending.” But it has been asserted, and by many the impression is still retained, that Mr. Abernethy considered life to depend on electricity. He never maintained any such doctrine; and it is quite extraordinary that he should have been so misrepresented.

It happened that once, during Mr. Abernethy’s life, I had a dispute on this very subject, with a gentleman whose intimacy with Mr. Abernethy should have taught him better: and the reference we made to Mr. Abernethy himself, drew from him a confirmation of that view of his meaning which I had entertained; and which I contend is so clearly laid down in his Works, as to forbid any other conclusion*. In the exercise of that talent which he possessed,

* “It is not meant to be affirmed that electricity is life. “I only mean to argue in favour of Mr. Hunter’s theory, “by shewing that a subtile substance of a quickly and powerfully mobile nature seems to pervade everything, and is “the life of the world; and that therefore it is probable, “that a similar substance pervades organized bodies, and is

of illustrating difficult subjects, he was accustomed to illustrate his views of life by shewing its *analogy* with electricity ; but he never meant to identify the two principles ; nor to apply the facts observed in the actions of electricity in any other way, than to explain his ideas of that which was altogether inscrutable, by that which was, to a certain extent, known ; to explain, by reference to the superaddition of electricity to a wire, for example, his ideas of the relation of life, and the mode of its connexion, with matter.

It is not expedient here to speculate on the correctness or incorrectness of those views of life which were advocated by Mr. Abernethy ; still less would I say that they will never be found to have been prophetic of the truth : for when we consider that electricity is now allowed to pervade all nature,—that its identity with galvanism and magnetism may be regarded as proved,

“ the life of those bodies. I am concerned, but obliged to detain you by this recapitulation, because my meaning has been misunderstood or misrepresented.”

Abernethy's Introductory Lectures.

—when it is found, as Sir Humphrey Davy shewed long since, that electrical agency not only controls the laws of chemical affinity, but that chemical actions are in truth electrical,—when we recollect that, not content with admitting that electricity inhabits all bodies, we are beginning to think of its definite proportions,—when various phenomena powerfully suggest the idea, that light, heat, and electricity, if they be not identical, are some mysterious modifications of each other,—when a subtle agent, like polarized light, seems to have proved a difference in the molecular arrangement, of substances, which chemistry has hitherto believed to be identical,—and when, lastly, we see an electric battery fairly the product of life, as in the *gymnotus electricus*, and torpedo,—may we not expect, without being very unreasonable, that, at no distant period, we shall regard the phenomena of electricity as something more than a happy illustration of the actions of life; and be obliged to acknowledge, the probability at least, that electricity, so largely employed as an instrument of Om-

nipotence, either *does exert some important influence on the laws of vital action, or that animal life is the only assemblage of phenomena, in the regulation of which it exerts no power.*

To proceed, however, to the consideration of opinions more obviously connected with the practice of surgery, and to mention one other instance of coincidence in the views of Hunter and Abernethy :—I would observe, that Mr. Hunter, in lectures which are reported to have been laboriously delivered to an ungrateful, because, too often, an inattentive audience, was elaborate in describing those important phenomena, which constitute the various sympathies of the body ; his object being to shew, as Mr. Abernethy used to express it, that the whole body sympathized with all its parts.

Mr. Abernethy laboured to demonstrate, if not to an inattentive audience, certainly amidst the suppressed sneers* of many of his hearers, that diseases of parts of the

* Mr. Abernethy used to observe, that some people said he was mad : perhaps now, they would be satisfied in considering him to have been original.

body had constitutional origins or connexions. Whether the two opinions were of independent formation, or whether the latter were an emanation of the former, here we see the universal sympathy of John Hunter linked with the "Constitutional Origin of Local Diseases" of John Abernethy.

The influence exerted by the chylopoietic viscera in various diseases, and on particular states of the nervous system, had been recognized from the earliest times; nor would it be difficult to adduce evidence of this recognition from the writings of the Greek and Arabian physicians, or those of enlightened men at all periods. In some instances, this is so marked, that (as is the case with regard to many important discoveries—the circulation of the blood, for instance) we are surprised that men who evinced such power of observation should not have proceeded a little further, and have arrived at the important inductions so obviously arising out of the facts which they had observed. Mr. Abernethy, however, appears to have been the first person who fully appreciated

such facts ; and, by shewing how they were legitimately deducible from physio-pathological principles, at once unveiled, as it were, the universality of their application. Truth has been said to lie near the surface. Mr. Abernethy's views appear to rest on a few simple propositions, which, separately considered, are so obvious as to appear little more than truisms ; but which, considered in connexion, constitute the basis of scientific surgery.

Thus, great local irritation will produce great constitutional disturbance ; a less degree of local irritation will produce a less degree of constitutional disturbance ; and these, reciprocally. The state of the nervous system, and of the chylopoietic viscera, will influence and maintain constitutional disturbance ; and, further, in the maintenance of a disordered state of nervous system, there is nothing which more powerfully contributes thereto, than disturbance of the digestive organs, nor any thing which more effectually relieves it than producing a tranquil condition of them. I shall shew you, hereafter, how the whole practice arises out

of these simple propositions. It may be well, however, even here, to consider Mr. Abernethy's opinions a little more in detail ; for although to some it may sound strangely, yet it is nevertheless true, that he continues to be much misunderstood and misrepresented. Facts which were the gradual accumulation of vigilant observation, as well as the principles which were carefully and legitimately deduced from them, are frequently considered as having been wrested to conclusions to aid a favourite theory, or, as the creations of an imagination fertile in resources for the support of pre-conceived opinions ; whilst views of disease eminently remarkable, for a comprehensive perception of all those agents which exert an injurious influence on the animal œconomy, have been represented as referring all disorders, if not to a single organ, at least to the chylipoietic viscera.

In order to examine whether these allegations be founded in truth, let us take a cursory view of those agents, which are acknowledged by all to be chiefly influential in the production of diseases, and also, of

the organs on which they for the most part primarily operate ; and then, examine how far they were recognized by Mr. Abernethy. 1st. There is the influence of the kind of air we breathe : 2dly. Our food (both fluid and solid) : 3dly. Changes of temperature : 4thly. Impressions primarily made, either of a physical or moral kind, on the nervous system : and, lastly, Substances, sometimes of a tangible nature, sometimes impalpably blended with the atmosphere, at others, inextricably involved in the general phenomena of specific diseases, and which are included in the catalogue of poisons, using that term in the full extent of its technical application. As structures on which these influences primarily act, consideration suggests,—1st. The skin : 2dly. the viscera of the chest : 3dly. the chylopoietic viscera : and, again, the nervous system. If this sketch do not present you with a comprehensive view of the sources of diseased action (for I say nothing of accidents in this place), you will find difficulty in suggesting any malady which the profession would hesitate to admit might be properly classed

under one or other of the divisions it implies. The question is, then, were such divisions recognized by Mr. Abernethy? and the answer is, undoubtedly they were—and in a very marked manner. How largely did he expatiate on the influence of the nervous system,—how much on that of the air we breathe,—how much on the importance, both generally and locally, of regulation of temperature,—how original and interesting was he on the subject of poisons,—and how clear and convincing on the influence of diet, and the condition of the digestive organs. What, then, becomes of the charge of seeing all diseases through one medium? How is such a charge reconcilable for one moment, with an enlightened and enlarged physio-pathology (to use one of Mr. Abernethy's own words), which professed to place its very foundation on the sympathy of the whole body with all its parts. No, Gentlemen, I can assure you, from ample opportunities of observation,—from many years' attendance on his lectures,—from private conversations on all subjects on which I had any doubt,

as well as a careful perusal of his written compositions,—Mr. Abernethy entertained no such narrow views, as those which are sometimes imputed to him; but he did believe, and strongly contended for this point—that, from whatever causes they might have originated, diseases were liable to considerable modifications, from the existing conditions of the chylopoietic viscera. That, in fact, disorders of these important organs would aggravate the malady, whatever might be its nature; and that disorders acting primarily on other parts of the body, or on the nervous system, would produce disturbance in the functions of the digestive organs,—which organs, reacting on the causes which so disturbed them, would thus increase the general disorder. If, at this day, you would have proof of these propositions,—its production is easy. The difficulty is, to select that out of the vast multitude, with which the least reflection supplies us, best adapted to impress the conviction it conveys. Shall we look for the extended influence of the chylopoietic viscera, in the helplessness of the cradle,

in the tottering commencement of early life, in the progress of adolescence, in the full vigour of manhood, in the varying conflict of life with declining years, or when its thread is nearly spun, and man is approaching the mysterious precincts of the tomb? It is unimportant, Gentlemen, what period of life we select for our observation, since we shall not fail to discover unequivocal proofs of this influence in all. We frequently recognize its agency in the variable severity of teething, and the cutaneous diseases which accompany this process, in the modifications of the exanthemata, as also in other less febrile eruptions. If we select a disease, whose strong specific characters would seem calculated, *a priori*, to confer on it an exemption from influences of a general nature, as small pox; or one, the obtrusive character of whose local manifestations, seems to have occasioned a blindness, or inattention to those links which connect it to a disordered system, like porrigo,—we, nevertheless, find disorders of the digestive organs, conferring a dangerous malignity on the one; and, mea-

asures directed to restore and maintain a tranquil condition of these organs, the only certain source of relief in the other. In the middle periods of life, are not the various inflammatory diseases, as well as those dependent on specific poisons, modified in their effects by the condition of the digestive organs? Of the former, the history of phlegmonous erysipelas alone affords abundant illustration; and of the latter, I would select, as examples, with equal confidence, either syphilis, the Protean class which simulates it, or the disorders so often occasioned by the abused administration of mercury. Do we not see the proofs of the modifying power to which I am referring, in the varying consequences of the same degree of local injury, in the manner, duration, and facility of repair? In the more advancing periods of middle age, I need scarcely observe how often those insidious beginnings of that, which in old age is to become disease, are mixed up with a teasing condition of the digestive organs, in which medical science is frequently so baffled, as almost to welcome a tangible

disease as a substitute for an impalpable nervous disorder. In old age, when the efforts of science can but smooth the road, and ease the journey which they can scarcely retard, it must be familiar to most of you, of how much consequence is the due regulation of the quantity and quality of the food ;—how often the function of digestion requires those considerations, suggested by declining power : and even where the stomach seems still to retain a vigour, in but inconvenient keeping with an enfeebled frame, how frequently it happens that we dare not trust its exercise ; how important this limitation becomes, in guarding against those dangerous determinations, too commonly incidental to a declining and partial circulation ; and in warding off or abridging the insidious, but no less dangerous, influences of gout, rheumatism, and other well-known sources of structural disorganization. How beneficial in relieving sufferings of the various diseases of the urinary organs,—or, once more to speak of a disease apparently local, in mitigating the annoyances of the prurigo senilis. In

short, the influence of which I have been speaking, prevails everywhere ; not only at the various stages, as it were, of life, but at all intermediate portions of the journey.

Whether we regard diseases, usually considered, because apparently local, or those of evidently constitutional origin,—whether we direct our attention to those affections which are the results of more ordinary, or more cognizable causes, or contemplate those consequent on specific poisons,—whether we consider diseases of parts of the body, spontaneously occurring ; or those, the results of accidents or injuries, we alike find that the condition of the chylopoietic viscera, subjects all to important modifications. We know, too, that what is considered as perfect health, is not without its good and bad days,—its seasons of strong and weak nerve ; and although it is perfectly true, that disorder of the digestive organs is neither at such times invariably the cause,—nor its correction, the cure : yet it must be admitted that, even where the injurious impressions have been altogether directed primarily to the nervous

system, that the condition of these functions is equally important in lending force to the cause, and facility to the cure. For present purposes of illustration, the facts to which I have adverted will be sufficient; hereafter, I shall bring the evidence to bear on individual diseases, in order to enforce the principles which it inculcates, as well as to shew you, *that however important the influences of which I have spoken, you must not look exclusively to them in the treatment of diseases.* I only here add, that when anatomy informs us of the vast bulk of the digestive organs,—of the extensive and highly organized surface of the alimentary canal, which, were it extended on a plane, would be found to be not less than several square feet. The enormous quantity of blood by which these parts are supplied,—the great bulk and complicated structure of those organs, part at least of whose office, we must believe, is to assist in the function of assimilation;—when we reflect on the manner in which the chylopoietic viscera are connected with the cerebral, spinal, and ganglionic systems of nerves,—when

physiology unfolds to us, that the materials of which our bodies are composed are undergoing a constant mutation, for which the digestive organs constitute the only source of renewed supply,—that the blood which they elaborate for this purpose, with the additional influence of atmospheric air, furnishes every variety of structure, the brain not excepted, with the required support ;—when we observe, too, those important facts, which I have no time to consider at present, but which, as a whole, constitute the phenomena of sympathy ; and which, though they explain not the nature, yet demonstrate the existence, of a mysterious connexion of the digestive organs, with every important structure, as well as with each other ; and when every disease, but moderately studied, serves but to illustrate that which anatomy, physiology, and common observation alike combine to teach. When we consider these things, I say, instead of being sceptical or restricted in our conviction of the influence of the chylopoietic viscera, should we not rather wonder, that the proper and extended bearing of these

truths on the practice of surgery, should have been reserved for the eighteenth century, and John Abernethy.

Now it may be said, that Mr. Abernethy's opinions are established, that their influence in the treatment of diseases is well understood and acknowledged, and that it is seen in the every-day practice of the profession. There is something of truth, but much more of error, in the foregoing assertions. That the regulation of the functions of the digestive organs is not wholly neglected, even by the least informed, is admitted; nor is the general principle of their influence in diseases denied. But how is this loose credence in Mr. Abernethy's views, much less the perception of the enlarged pathology by which they are characterized, evinced? I speak it not irreverently, when I say, that here, as in matters of still graver import, our faith must be judged of by our works. It is in vain that we profess a respect for the opinions of Mr. Abernethy, if we act in daily violation of the laws which it has been their object to establish. If, for example, in the treatment of diseases, our

endeavours to adjust the quantity and quality of food to the digestive powers, consist in a few vague general directions, modifiable by the equivocal interpretation of caprice or inclination ; if our internal remedies, presented, first, to so important an organ as the stomach, be given at intervals, having no well-considered reference to the condition of that organ ; if, in the administration of remedies, we increase the difficulties inseparable from an enquiry into their effects, by unnecessary variety and complexity in their prescription ; if local remedies be administered without due consideration of the state of the part, and of the constitution, gifted with an universal sympathy ; and, lastly, if all these errors occur at one and the same time, so that we are equally at a loss to know to what we are to attribute success, or to what to ascribe failure, what boots it that the perpetrator of such practice profess a belief in the opinions of Abernethy ? For my part, I view such a practitioner (and, if you will only observe, you will find that I state no fictitious, nor even uncommon case) as more

opposed to the diffusion of the principles which I would advocate, than he who proceeds on an avowed disbelief of them. The latter may now and then stumble on a fact, with which the disturbed functions of nature will sometimes awaken even the most obtuse and unobservant ; but the former is in a voluntary darkness, in which the fact would altogether escape observation, or only serve to confirm him in error, but inducing him to ascribe it to the unsoundness of the very principles, of whose truth it might be an emphatic example. I now proceed to offer a few remarks on the practice of Mr. Abernethy ; to shew how its great simplicity, and somewhat limited catalogue of ordinary therapeutic resources, are reconcileable with what I have termed an enlightened and enlarged pathology.

Mr. Abernethy was a surgeon, and educated at a period when medical surgery, which he himself contributed so largely to establish, was but little known. He was accustomed, for the most part, to remedial agents, whose effects he could watch with something like accuracy ; and was not in

the habit of prescribing medicines in that variety which is now so common. Mr. Abernethy was a close reasoner; and nothing is more difficult than to reason closely on the effects of remedies. That undefined peculiarity, which we call the idiosyncrasy of individuals; numberless varieties in the condition of the nervous system in general, as well as that of individual organs, many of which we have no means of discovering, and scarcely any of which we can be said really to understand; the influence of life, in forming chemical combinations, on which we may not have calculated, as well as in modifying or preventing those which we intend should take place; the varying qualities of drugs, rendered still greater by the unprincipled adulterations of commerce, and a number of other circumstances, render the science of medicine so fraught with difficulty, that we can hardly imagine anything more laborious or uninviting. No sooner does the mind, wearied with unfruitful attempts at some useful practical induction, grasp at what appears a legitimate conclusion, than some new or unexpected

anomaly presents itself, which renders doubtful, or perhaps falsifies, the law we had hoped to have established. If, therefore, the branch of the profession practised by Mr. Abernethy, did not oblige him to investigate largely the effects of internal remedies, there seemed still less chance of his being induced to do it, from inclination. When, at length, Mr. Abernethy's great reputation led so large a number of persons to consult him on medical cases, he seems to have relied, and not unnaturally either, on the practice which he had so often seen successful; the cases differing probably but little from those with which surgical practice had previously furnished him, except in the absence of external manifestations of disorder. I think it is to be regretted, that Mr. Abernethy did not investigate the effects of medical remedies more extensively; for, judging by the application he has made of those he did employ, we are justified in concluding, that his enquiries would have added some useful results to our therapeutical knowledge. Mr. Abernethy, however, employed but few remedies, and those

chiefly of a kind, whose effects were, for the most part, well ascertained and admitted*. In this respect he seems, with a characteristic rapidity of perception, to have begun where most of the profession finish; and, in early life, to have commenced with that simple sort of Pharmacopœia, which, even in such men as Sydenham, Baillie, and most other distinguished pathologists, appears to have been the slowly accumulated product of experience and disappointment; to have forestalled that state of things, which has been described as characteristic of the life of the physician, who commences by having several remedies for every

* Amongst the various misconstructions of Mr. Abernethy, it has been thought, that he disregarded local remedies; whereas he was fully acquainted with their just value. His treatment of susceptible surfaces, for example,—his mode of endeavouring to quiet local irritation, whilst he prosecuted his endeavours to tranquillize general disturbance, is another example of his attention to local matters, as it is of good surgery. In connexion with this, I may mention that no one could be more particular than he was, in keeping diseased joints motionless, by splints: a practice of great importance, and recently recommended by Sir Benjamin Brodie; but apparently without being aware of the fact I have just stated—as Mr. Abernethy is not mentioned.

disease, and concludes by having many diseases for which he has no remedy. Although Mr. Abernethy employed but few medicines himself, he was far from being opposed to a more extended use of the Pharmacopœia, and always listened to a well-digested narrative of the effects of a particular remedy with respect and attention. In giving you, however, a faint outline of Mr. Abernethy's principles and practice, you will see, as we proceed, that I shall be far from recommending a servile imitation of him in points of detail. No one can, I trust, have a higher respect or veneration for his opinions; but I would not blindly follow those of any man. The mode by which we best testify our respect for the opinions of an individual, is, by bringing our best energies to an unbiassed examination of them. If they be true, the more we examine, the more we shall admire; whilst, perhaps, in the practical application of them, careful consideration may, even to very subordinate capacities, suggest useful modifications, which may have escaped the expansive generalizations of their

author. Again, if a principle be true, the multitude of phenomena to which it may apply, are scarcely ever known at the time that the principle is first promulgated. In almost every example which the sciences afford, there are always accumulating facts, which are constantly awarding to it a wider range of application. I believe you will find these remarks apply to Mr. Abernethy's opinions, whilst they demonstrate their increasing value. I shall not hesitate in mentioning to you, in their proper place, such modifications, or extended applications of them, as have occurred to myself. Where I think that the genius of Mr. Abernethy may have generalized too hastily, I shall not shrink from expressing my conviction. Although he seldom prescribed without seeing, or believing that he saw, the principle, or at least the organ, on which the remedy was to act, it will be right to tell you, that the state of medical science frequently denies us this gratifying condition; but that, notwithstanding, we must not hesitate in employing that which experience may have proved useful. Speak-

ing generally, when I may be considering the various ways in which medicines act on different individuals, and under different circumstances, I shall not scruple to recommend to you a more extended use of our Pharmacopœia ; not, perhaps, than Mr. Abernethy would have sanctioned, but than he would himself have employed. In examining his opinions freely, we shall, as I believe, make the best use of the splendid legacy which he has left us, in extending the practice of an improved surgery ; and in shewing the application of his principles under modified forms, to diseases in which they may have been hitherto deemed ineffectual ; and thus rest the perpetuity of his name, not on the monumental marble, nor even on a splendid museum, but on an increasing power in the prevention and cure of disorders, on a diminishing recourse to painful and dangerous operations, and on an extension of those colossal traces of his genius, already seen, in an improved medical surgery, throughout the civilized world. Referring generally to his opinions, I would advise you to postpone the consi-

deration of his views of life, and take subjects better adapted to your present objects; to study well his views of physiology and pathology; to inform yourselves thoroughly of the principles on which he would administer remedies, without limiting yourselves to his restricted Pharmacopœia; to regard diet as a thing of vast importance in the treatment of diseases, but to recollect that it is only one point in the management of them, and that different cases may require very considerable modifications, both in the manner and matter of its administration; to keep before you the bright example which Mr. Abernethy afforded of the honourable practice of an arduous profession, without imitating the uncourteous manner by which it might have been occasionally sullied; to emulate, each in his ability, that enlarged benevolence which disbursed such vast sums, annually, to distressed brethren, without exhibiting the rough exterior, beneath which such a heart was concealed; and, let me add the hope, that, in imitating such a god-like feature in his character, neither the ab-

sence of moral courage, nor the presence of flattery, may prevent you from shedding the lustre of a discriminating justice, over your beneficent dispensations.

The lectures, Gentlemen, which I propose to give, then, will, in the liberal sense of the term, be based on the principles which were taught by Mr. Abernethy; and the practice they recommend will, I trust, be exemplified and enforced by Clinical illustrations. I need scarcely observe, that this Institution affords a large field for observation: here you may judge for yourselves whether those views promulgated by Mr. Abernethy were merely ingenious theories, or whether they were faithful transcripts from the book of Nature. If they stand not the test of practical application, you will do right to reject them. If, on the contrary, this test should demonstrate their truth and value, I trust that you will spare no pains in rendering yourselves thoroughly acquainted with their application, not only in those diseases which may be comprised in an imperfect course of clinical instruction, but in the general

practice of surgery as taught in systematic lectures.

In systematic lectures, the student is taught what he is to look for—how he should endeavour to elicit the information which he seeks. The usual history, causes, symptoms, diagnosis, prognosis, and treatment of disease, are methodically described, with such an arrangement of rule and exception, as the infinite varieties of morbid action render practicable, consistently with clearness: and most useful, certainly, such lectures are. The student is, however, here dependant on the teacher; the correctness of whose views, he is, in some measure, compelled to admit, until he has opportunities of forming his own. In clinical instruction, the book of Nature is alike unfolded to the student and his preceptor. No ingenuity or preconceived opinion, can materially colour or distort the facts, alike accessible to both. The reasoning of the teacher, as well as the practice he deduces from it, are put to the test of experiment; and the various forms of disease, as they occur in nature,—so infinite, as to defy

systematic classification,—are seen under circumstances best calculated to impress them on the recollection. Whilst, therefore, systematic lectures are highly useful, they seem chiefly so, as preparing the student for clinical instruction: without this, whether he seek it in the practice of others, or wait until he slowly accumulates it amidst the absorbing anxieties of his own, he can scarcely pursue his profession with comfort or advantage. The lectures, then, will be chiefly clinical; and as the subjects of them will therefore necessarily be regulated by the cases which have recently been, or which are, at the time, under treatment, they will be often little more than extemporaneous. I shall endeavour, however, not to lose sight of the practical points, whether they be all demonstrable or not, in the cases in question. The importance of the surgical practice, offered by large dispensaries, has not been duly appreciated, because, perhaps, till recently, not known by our public bodies: for whilst too much can hardly be said, of the opportunities of information presented by our noble hos-

pitals ; still they shew nothing, more or less of which, is not to be seen in a dispensary : whilst, on some points, dispensaries have even the superiority,

Hospitals have an advantage over dispensaries, in the greater accommodations they afford to patients labouring under accidents, or requiring operations ; in the consequently greater number of such cases, and in the control which may be exercised over the habits of the patients, so material in the accurate investigation of the effects of remedies, and in enforcing the prescribed treatment ; advantages alike important to the interests of science, and, in cases of contemplated insubordination, to those of the patients also. But again, the large number of pupils, consequent on the monopoly which hospitals enjoy, constitutes, practically, a material subtraction from some of these advantages. On the contrary side, it is to be observed, that many diseases are seen in dispensaries better than in hospitals. The following is a catalogue of diseases, some of which are scarcely seen at all in hospitals, and all of which are seen as well,

and for the most part better, in dispensaries. Infantile diseases generally—such as disorders incidental to teething, *strophulus*, *porrigo*, small-pox, measles, scarlatina, whooping cough; constituting together so important a feature in the occupation of the general practitioner. To these may be subjoined, cutaneous diseases generally, ulcerations of the lower extremities, and diseases of the aged; incipient affections of the joints and of the urinary organs, diseases of the eye, the various disorders connected with uterogestation and lactation, with fever of very variable type and severity. As the Legislature is now informed on these points, let us hope that dispensaries will, ere long, be recognized as competent fields for instruction. This would increase their usefulness, and add to that of the hospitals, by encouraging competition, which is, as I once heard justly observed, “the surest source of excellence.” You will not, however, Gentlemen, in the practice of a dispensary, discover those powerful impulses which operate elsewhere. Dispensary practice, abstractedly considered, pre-

sents few of those rewards, either of fame or fortune, which are calculated to excite the zeal and animate the industry of the hospital surgeon—none of those comforts, which at least diminish labour, if they do not relieve responsibility. Your operations, instead of being performed in roomy, light, airy, and otherwise well-adapted theatres, with “all appliances and means to boot,” must be frequently performed in the crowded, dark, ill-ventilated abode of filth, poverty, and wretchedness; and (your own instruments excepted) with such other conveniences as an extemporaneous ingenuity can often but imperfectly supply. But even here again there are some advantages. Dispensary practice will shew you many a page in the book of nature, unfolded nowhere besides. The localities of disease, and the habits of patients, are nowhere so well seen as in their homes; and the same may be said of the influence of physical suffering in the development of moral character. The view presented to you of the misery of disease, with poverty and its afflicting complications, will awaken your

sympathies with the wretched, and teach you thankfulness for the health which you may enjoy. Naturally, thus exalting your ideas of the usefulness of your profession, it will, I should hope, inspire you with additional zeal in its study. Dispensary practice may teach you also other lessons, not without their value. The various difficulties that may beset your path, or disgust your sensibility, nay, even the ingratitude with which your attentions may be occasionally received, may, by reflection, be turned to advantage.

The first, will inform you betimes, that the profession which you have embraced is no play-work, and excite corresponding energy, whilst youth and health afford you a liberal supply; whilst an early drilling in the difficulties of public practice, will render those of private professional life comparatively trifling, and thus leave you less encumbered to support its somewhat increased anxiety. The ingratitude will teach you, that even in the administration of benefits, which the best part of your lives have been spent in obtaining the power of conferring,

and which, when accomplished, constitute the best gift that man can confer on his brother—that even here you must be philosophers, superior to common motives, and look to the *mens sibi conscia recti* as your chief reward.

IN the subjoined attempt at a tabular arrangement of the more common order in which important parts manifest their sympathies, it should be understood that I address it to students, and those of my younger brethren who may not have had their attention as yet directed to the subject; and I beg them to understand that it is only to be regarded as an attempt at an approximation to the truth. The nature of the subject does not admit of more than this, unless it were in a work expressly devoted to the consideration of Sympathy, and the enumeration of the whole of its phenomena. The table, therefore, is exceedingly imperfect; and I cannot too strongly impress the necessity of placing only a very measured reliance on it. Thus checked by the observation of individual cases, it may invite an examination of the sympathies without misleading the examiner, and without disgusting him in finding such numerous exceptions to what it *appears* to establish as a general rule. The organ supposed to be primarily affected, or the more prominent object of investigation, is placed first, and so distinguished. The organs sympathetically affected, are ranged below it, in the order or prominence in which they are supposed to evince their sympathetic excitability. I may observe further, that, with relation to the organ supposed to be primarily affected, the more common disturbances have been kept in view. Thus, the more common disturbance of the brain, generally supposes some irregularity in its circulation, as congestion; in which more or less evidence is generally shewn by the external senses, especially sight or hearing. I do not mean defect in their sensual perceptions, so much as noise in the head, of some kind or another, as regards the ear; or some temporary morbid sensations in the eye, as irritability. If the brain be seriously affected, the organs of voluntary motion would come first in the list; but this is comparatively the rare case; whilst the most common headache scarcely oc-

curs without unusual sensibility to light and sound. Similar difficulties occur in all the other sections of the table. In fact, the difficulty of arriving at the approximation I would seek (when the endless varieties are considered, which are produced by various forms of disease, as well as different degrees of diseased action, essentially the same in their nature, together with those differences which the idiosyncracies of individuals daily present to our observation), is such as to render it, to me, very doubtful whether the table will be of any use at all. A judicious medical friend of mine, who was kind enough to consider this part of the subject, participated very fully with me in these doubts; but we also agreed in one thing, which at length decided the question in favour of printing the table; viz. that the very difference of opinion to which it must give rise, would probably provoke investigation; and as this is the object which, more than all others, I would desire; considering the fact, of whether any views of mine be adopted or not, as immeasurably of little consequence, when compared with the importance of exciting more attention to an important subject, I have somewhat reluctantly added the table in question. The stars (*) are placed where the situation given to the organ has appeared more than usually doubtful; and as enquiring whether it would have been better placed, where the superior star is touched by the bracket, }.

NERVOUS SYSTEM.

BRAIN; organ supposed to be primarily or prominently affected.

External Senses, one or more.

Circulating System.

Stomach*.

Bowels.

Liver.

Skin and Kidney*.

NERVOUS SYSTEM generally: as primarily affected;
usually characterized by general in-
creased susceptibility to impression.

Circulating Organs.

Secerning System, referring, in this place, more especially to
the mucous membranes and skin; and
in the female, to the milk or catamenia.

Uterus.

Kidney.

Stomach.

Liver.

Bowels.

RESPIRATORY AND CIRCULATING ORGANS.

HEART AND ARTERIES.

Lungs and subsidiary respiratory organs.

Skin.

Kidney.

Head.

Chylopoietic Viscera.

Serous Membranes.

RESPIRATORY AND CIRCULATING ORGANS.

LUNGS.

Heart.

Skin.

Alimentary Canal.

Kidney.

Liver.

Head.

Uterus.

DIGESTIVE ORGANS.

STOMACH.

Head*.
Bowels.
Liver.
Skin*.

Heart and Secerning System.

External Senses.

Uterus.

Testicle, rarely.

BOWELS; as primarily affected.

Head.

Skin and Kidney, more or less latent, so as often not to *suggest* enquiry; but on this being made, almost always found sympathizing in every variety of disorder of the bowels.

Stomach.

Liver.

Heart.

Lungs; but much earlier where there exists any predisposition to disorder.

LIVER; as primarily affected.

Bowels.

Head.

Stomach.

Heart and Lungs.

Skin.

Kidney.

Uterus.

SKIN.

SKIN.—Nothing more uncertain than the order in which it will excite sympathetic actions; it will greatly depend on the state of particular organs at the time that the impression on the skin is received.

Kidney.

Mucous Membranes—as of the nose, eyes, mouth, respiratory, digestive, and urinary organs, and, perhaps, in the order mentioned.

Vascular and Secerning System.

Liver.

Brain.

 URINARY ORGANS.

KIDNEY.

Skin.

Stomach.

Bladder and Urethra.

Lungs.

Heart.

Bowels.

Head.

 BLADDER.

Skin.

Kidney.

Urethra.

Alimentary Canal.

Testis, occasionally.

Head.

URETHRA.

Bladder.

Skin.

Kidney.

Stomach ; sometimes requiring investigation, but generally obvious enough.

Fibrous Tissues.

Rectum and Bowels.

Testis. The testicle may appear low in the list, but its ready sympathy is chiefly seen in a few affections only, whilst that of the other organs is, for the most part, constant.

Head.

 GENERATIVE ORGANS.

UTERUS.

Stomach.

Vascular System.

Head.* *

Bowels.* }

Rectum.* }

Bladder and Kidney.

Skin.

Lungs.* *

OVARY ; very uncertain, probably not very different from the uterus. The sympathy between these two organs are very irregular, sometimes being very excitable in disease, sometimes very little so. On the whole, the ovary seems to have a more ready sympathy with the uterus *in disease*, than the uterus with it.

TESTICLE.

Stomach.

Skin.

Heart and Arteries.

The student will recollect that parts will generally be affected so simultaneously, that *order* may not be distinguishable; but yet some one will generally manifest a more prominent sympathy than others. In every affection of every organ, the vascular or nervous systems will sympathize more or less. This is therefore a question of degree rather than of order of occurrence.

POSTSCRIPT.

IN the concluding paragraphs I may have appeared to advocate the admission of dispensaries as competent surgical schools, as an addition to a system, of which I *otherwise* approve; I only mean to say, that so long as the student is directed where to go for his information, it is wrong to exclude dispensaries. I contend that they afford ample fields for the acquirement of professional knowledge; and I have had as good an opportunity of judging of both hospital and dispensary practice as is often combined in one individual. Recognized as competent schools, dispensaries would afford men some means of bringing whatever talent they might have to some account; who, when they do their duties conscientiously, labour much harder (and frequently without any remuneration but the information they acquire) than any men in the profession. On the other hand, I should be sorry to be

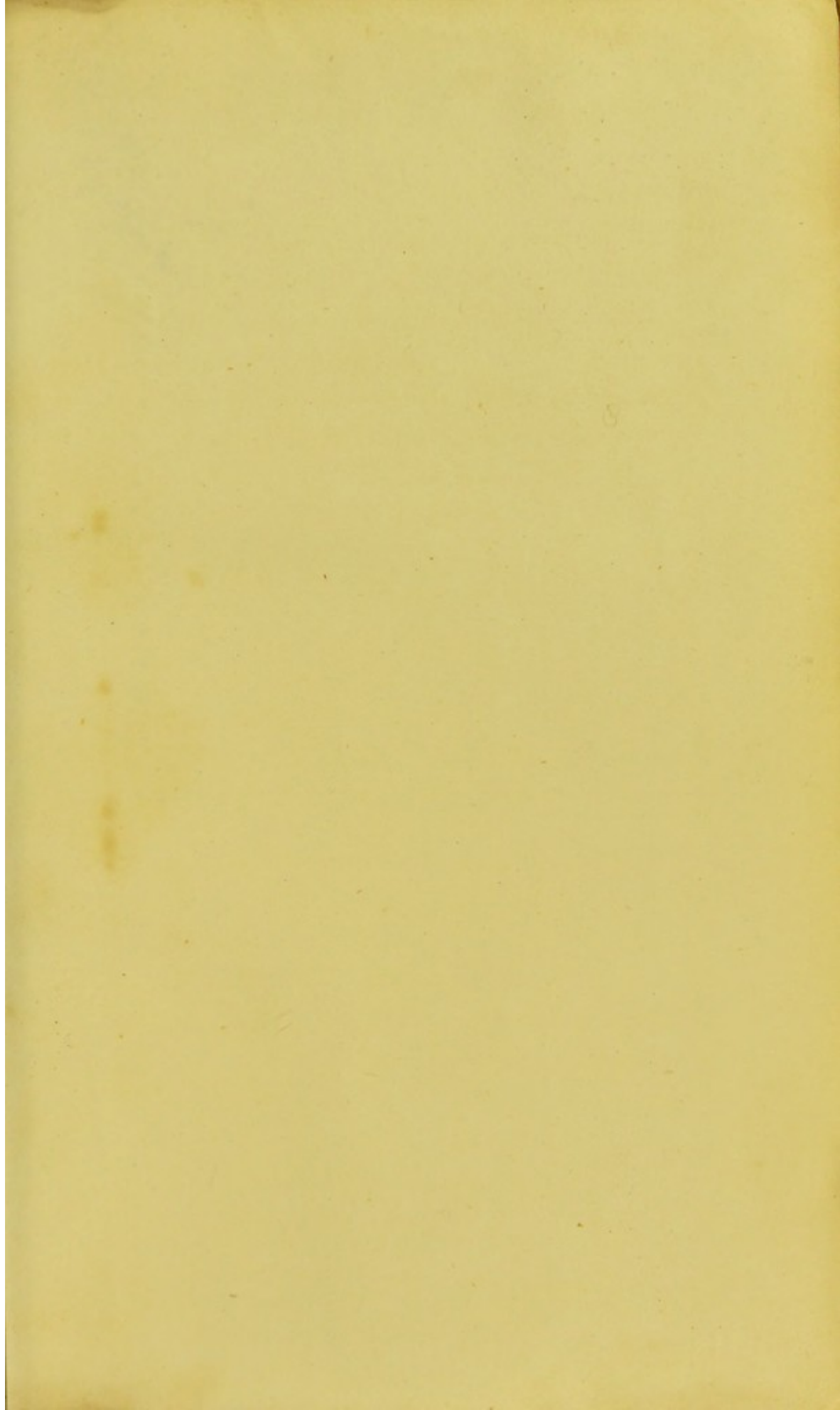
understood, for purposes in which I may *appear* interested, to advocate a system which I cannot conscientiously consider either just or useful.

Abstract justice seems to me to require that all men should be allowed to obtain their information, when, how, and where they please. They should neither be confined to one institution nor another—the best check to incompetency being a full, fair, and efficient examination. As regards the efficacy of this test, I never heard in my life one single good argument impugning the security it offers, whilst it would be very easy to shew that the system of certificates is most inefficient.

FINIS.

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appear interested, to advocate a system
which I cannot conscientiously consider
either just or useful.

Abstract justice seems to me to require
that all men should be allowed to obtain
their education, when, how, and where
they please. They should neither be con-
fined to one institution nor another—the
best check to incompetency being a full,
fair, and efficient examination. As regards
the efficacy of this test, I never heard in my
life one single good argument impugning
the security it offers, while it would be
very easy to show that the system of cert-
ificates is grossly inefficient. It is a
system of favoritism, and is calculated
to keep out of the profession all the
talents which are not connected with
the institutions which are favored. It is
a system which is calculated to keep
out of the profession all the talents
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fair and efficient examination. As regards
the efficacy of this test I never heard in my
life one single good argument in favour
the contrary. It only, what it would be
very easy to show that the system of certi-
ficates is most objectionable.

It is a common error to suppose that
the possession of a certificate is a
proof of ability. It is not. It is
only a proof that the holder has
passed through a certain process
and has been judged by a certain
body of men to be fit to be
admitted to a certain profession.
It is a very different matter
to suppose that the certificate
is a guarantee of the holder's
ability. It is not. It is only
a guarantee that the holder has
passed through a certain process
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admitted to a certain profession.



