Into this I inserted the point of a knife below the urethral thickening, and pushed it forwards, so, as I thought, to effect complete division of the stricture. Instruments of moderate size were then passed into the bladder, shewing that there was no other obstruction in the canal; but not with the perfect facility and freedom usual after such an operation. I trusted that what remained of the stricture would yield to dilatation, and was no less sorry than surprised to find that little improvement resulted from what had been done, as the urine did not issue with more freedom from the orifice of the urethra, and continued to escape not only by the fistulous opening in the perinæum, but also by the small opening which I had made.

On September 6th, feeling that the urethra was thickened at each extremity of the incision, I again introduced a director, and pushed the knife along its groove in both directions. No decided change was thus produced; and, notwithstanding the continued use of bougies, which still encountered difficulties in their introduction, the state of matters appeared so unpromising that I began to fear there must be an obstacle to recovery in some other part of the urinary organs. But, before abandoning the case as hopeless, I resolved to try the effect of cutting through the whole constricted part of the canal in such a way as would more certainly ensure its complete division; and, therefore, instead of pushing the knife along the groove against the thickened texture, which by its toughness might elude the edge, however keen, I introduced the blade between the integuments and the urethra, so as to enter the stricture beyond the anterior extremity of the part concerned, and then cut downwards, so as to penetrate with certainty through the whole extent of induration. A full sized catheter was then introduced, and retained three days.

This was done on October 29th; and produced a very different result from those of the two previous operations. The urine soon resumed its proper course; the fistulous openings closed; and instruments of the full size passed without the slightest difficulty or feeling of constriction. At the end of a month, the patient was in every respect perfectly well, and left the hospital without the slightest trace of his life-long misery.

Of the points which this case illustrates, the one most important in a practical view is the risk of failure which it indicates from the tough texture being pushed aside instead of freely cut by the knife. It seems not improbable that many results of the operation may thus have been rendered unsatisfactory; and I would therefore suggest that the method adopted in the circumstances just related should be always employed. For this purpose, the groove of the director should extend about an inch into the thick part; and I have had the instrument made so accordingly.

VARNISH TO PREVENT RUST IN IRON AND STEEL. M. A. Vogel, in *Répertoire de Pharm.*, suggests that the oxidation of steel and iron instruments is very perfectly prevented by coating them with a varnish made by dissolving one part of white wax in fifteen parts of benzine, and applying it by means of a brush. The very thin layer of wax forms a perfect covering for bright instruments, and, when needed, is easily removed. (*Amer. Jour. Phar.*)

General Remarks ON THE PRACTICE OF MEDICINE.

BY

P. M. LATHAM, M.D.

IX.—TREATMENT.

Distinction between the Proper and Common Elements of Disease. All Treatment conformable to this Distinction and Illustrative of it. Small-Pox Scarlatina. Measles.

A GENERAL outline has been given of what Treatment is; shewing it at work within its own sphere, which is a pretty large one, and upon its own objects, which are numerous enough; and how from among all the things within its reach and power to deal with, it seeks and finds the fittest to become practical indications, and then actually dealing with them produces great results.

But some of these objects are worth a nearer inspection, if we would understand how all good Treatment falls in with the nature of disease pathologically. Besides, remedies have been spoken of as the "great analysers of disease" (Art. 7). But how so? Verily in the sense of testing and discerning the elements of which disease consists, even its *vital* elements, or the things comprised in the doings and sufferings of those who are the subjects of disease, while they are yet alive. All this, for the sake of its importance, let us now consider a little carefully, and try to explain it, relying upon the plainest and commonest matters of fact as we go along.

It may be doubted whether the theories of clever men have not done more harm to the practice of medicine than all the mere blunders of the ignorant put together. At all events, purely speculative conclusions about the nature of diseases have heretofore done quite enough in confusing and misleading practice to make us cautious by this time, how we receive and trust what comes to us in the same questionable shape.

But pathology has its general facts nevertheless: that living pathology, I mean, which is the physician's concern and study, as he sees and watches and ministers to disease, and all that belongs to it, in living men. *This* pathology contains facts of high generalisation. And if among them there be any which point to practice, it were a pity to pass them by and not follow them in the direction to which they point. For ultimately they may stand for practical principles.

The distinction between the *proper* and the *common* elements of disease is a fact of this kind. It is plain and unmistakable enough in certain conspicuous instances. And these may be taken advantage of to introduce and explain the general truth, which pathological research seems in the way of verifying by new instances continually.

And, first, for the *proper* elements of disease. *Proper* to what? *Proper* to the disease itself in its own nature, and distinguishable from whatever else may attach to it in this, that, and the other living body wherein the disease is found.

We take something on a pin's point, and with that pin's point we just prick the skin hardly enough to be felt or seen. But by this little prick the something has gained its entrance, and is gone its way whither within the living body we do not exactly know. They say it is gone at once into the blood, has mingled with it, and is already distributed with it everywhere. Indeed one can hardly believe otherwise. But wherever the thing be gone, and whether moving or stationary, we can find it no more. Still wait for a certain time, a time forereckoned from the known quality of the thing upon the pin's point; wait, and a disease will come forth forereckoned also from the very same thing, a disease having its own proper characteristics and different from all other diseases in the world. And that disease is small-pox.

Here the element of the disease is the smallest that can be *sensibly* made sure of, the least that can be palpably taken and kept apart; taken, that is, from one living body and kept apart for some while (I know not how long), and then conveyed to a second, in which it becomes the beginning of a disease after its own kind, where there was no such disease before. Here, I say, is the least element of disease which is obnoxious to the senses. And from this example reason cannot refuse to admit the possibility of elements too minute for the senses to reach. Indeed, the possibility is made a certainty by the proved fact, that the same disease which is propagated by inoculation is propagated also by the contact or near approach of one living body having the disease to another living body having it not.

Through what channels and by what processes we do not punctually know, but instances innumerable of the like experiments and results attest it for a truth, that the thing almost or altogether too minute for the senses is the primary material element of the whole disease which follows. Further, this primary element in producing its disease multiplies itself into new material elements which are divisible to infinity and separable from their own living body, their native body (so to speak), and ready to be transferred to other living bodies innumerable, and so to bring vast communities into the same conditions of disease.

It is a great subject this of the *proper* elements of disease, seen or unseen, apart from the body. Their reality, the conditions of their existence, their spread, their limit, also the substances to which they adhere, and much more besides; all these things require a pretty comprehensive mind to deal with them to much purpose. Then the mixture in this subject of equivocal facts and testimonies with the true, needs, moreover, a pretty shrewd as well as a candid and wary mind to pick its way safely, a mind not over-credulous and seeing contagion in everything, yet not over-sceptical and seeing it in nothing.

But our concern at present is with the *proper* elements of disease *within* the body.

Their entrance within the body is one thing and the visible outbreak of the disease is another. And between the two the patient's consciousness and the physician's observation testify either absolutely to nothing or else to nothing distinctive. Until diseases make outward presentment of themselves we know not *what* they are or whether they *are* at all. And yet it is certain that many diseases have a long period of latent being within the body. This is the

case with small-pox, scarlatina, measles, and all that spring from a proper contagious element of their own. Well, but is there nothing being transacted all the while? Is it a passive incubation altogether? Nature contradicts the belief by all its analogies. And all observation of these same diseases goes to testify that the process, though unfelt and unseen, must be an active process; and not only active, but that (be it what it may) it works and moves by a living law, and has stages and degrees and regular progressions filling up the definite interval, until the time is full and ripe for the disease to declare itself by its outward presentments. What else can mean the average periods of latency in small-pox, scarlatina, and measles, but that things are to be done therein, which require just those periods for the doing of them? The things themselves, be they what they may, unseen, unknown, and out of reach, but timed and ordered and forwarded by nature with exact care, must be taken, upon the faith of nature, to carry some weighty meaning and to contain more than a formal preamble to the coming disease. The disease stands at bay (so it should seem) within the blood, and there it defies our scrutiny of what it is and our attempts to meddle with it remedially.

But in due season, when the foreknown period, according to the nature of the disease, is complete, the proper elements come forth into broad daylight, and make of themselves their clearest, fullest display. They may be pictured to the eye and defined in their forms, succession, duration, growth, completion. They claim now pre-eminently to be called *the disease*, and group themselves into small-pox, or scarlatina, or measles.

Nothing in the world can produce small-pox, or scarlatina, or measles, but the proper element of each. And the disease being produced is simply a multiplication of the element from which each sprang, the same in kind and unaltered, be its quantity much or little.

And now as soon as seen, surely now if ever, the disease may be reached and laid hold of remedially in its *proper* elements; the small-pox in its crops of pustules, the scarlatina and measles in their diffused and figured rash. No! it cannot, even now. As when their proper elements, visible or invisible, were in the smallest germ; as when they were diffused, we believe, through the blood during the period of their latent progress and incubation; so now do these same elements, made visible and displaying this, that, or the other phenomenon in succession until they have completed their course, equally refuse to become the *direct* aim of any medical treatment.

Still medicine is constantly busying itself about small-pox, scarlatina, measles, and oftentimes, it believes, for good. But in *what way* does it busy itself with them? That is the question; and a question it is of great concern, and not to be answered off-hand.

The disease, be it what it may, if it have a distinct nature of its own, is never found pure and unmixed and its bare self and nothing more in any *living* body. There is, moreover, always something, which is *not* the disease and yet exists because of the disease. It may be much or it may be little, but there is always something. What the disease is and how it is identified with its "*proper* elements" restrictively and exclusively, and what they are, we have

just seen. All the rest have been left and let pass for its "*common* elements." These we would now take up in their turn and try to make them out.

But how *common*? Because found in all diseases and thus *common* to all, but identifiable with none. And *common* in a wider sense still—common to all diseases, and common alike to whatever the living body does or feels painfully or hurtfully, though it may not bear to be called disease. But all this needs to be made plain by familiar instances.

Suppose a man sound of body and sound of mind and at the prime of life, and ready to do battle with the world for what it deems its best things, for its wealth, its fame, its power. Such a man must not spare himself, or he will have a poor chance of success in this restless competitive age of ours.

Now, in some of his seasons of full activity, and enterprise, let him give a little attention to himself, body and mind, and note what they are doing and what they are feeling in compliance with the uses and necessities, the *hard* uses and necessities, of health to which he puts them. He will remark colds and heats and perspirations coming and going strangely, his pulse varying in force and frequency, perhaps his stomach, bowels, liver, kidneys at fault in the quantity and quality of their secretions; more of thirst and less of hunger than he likes; less of sleep and less refreshment from the sleep he has,—all this, and, besides, many an unusual pain in his head or heart or limbs, which he would be glad to get rid of and seek a remedy for.

Here are transacted, in brief and in little and many times over, much of what the body does and suffers in real diseases. The *common* elements of disease, and nothing less, are sensibly present and at work, while in truth the body is only engaged in some of the harder uses and necessities of health.

Let a man meet with some injury from without, small or great, simple or complex; presently all that is vital within him will shew its resentment of it, and continue to shew it little or much for a short or a long while, proportionably to the amount of the hurt and the time needed for its reparation. But how? Truly in some, many, or all of those identical ways in which the body is wont to be affected under the harder uses and necessities of health.

And here, be it remarked, that all the several ways in which the body is wont to shew itself aggrieved from the harder usages of health or from mere mechanical outward injuries, are found among the constituents of fever. And being not soon got rid of and being also severe, these come to shape and group themselves into what none would hesitate to call by the name of fever, and they may carry with them its consequences and its perils. Hence of those who have had (so called) fever thus derived, some occasionally have been very ill, some have recovered by a narrow chance, and some have died.

But there is no such familiar image of disease (if, indeed, it be the image and not the reality) as intoxication. The body is abused into all the conditions of disease for a season. First you have, as of disease, the *proper* elements foreign to the body and without it; and then the same introduced within it, and left to it to deal with and bear with as it may; but totally beyond the reach and touch of remedies. Next you have, as of disease, the *common* elements shewn in what the vascular system and the nervous

system, and their two great central organs, the heart and the brain, do and suffer according to the modes and measures of which they are capable under any present stress that is laid upon them. And oftentimes in intoxication these actings and sufferings, identical as they are with the *common* elements of disease, come with such rapidity and are carried to such excess that, but for experience to the contrary, we should constantly see in them great peril of life.

Again, let a man suffer real disease; such as has demonstrably an essence of its own and its own *proper* elements. Let it be small-pox, scarlatina, or measles. This disease having gained entrance within the body is left to its vital powers to deal with as they may. By them it is to germinate and increase, be matured, and be finally cast out. But it is a hard necessity they have to strive with, a hard work they have to do, these vital powers. Yet not so hard but that they often accomplish it perfectly. Sometimes, however, it is so hard that they cannot get through it without hindrances and drawbacks and disasters, and, in the end, restoration is incomplete and not without remnants of damage to the body for a time or permanently. And sometimes so hard, that early or late or midway the vital powers utterly fail and the patient dies.

Meanwhile the ways in which these vital powers sometimes feel and act we summarily call fever. And fever is greatly indicative of Treatment. Not that we can treat fever as summarily as we talk of it. We cannot name it in one single word and name its remedy in another. We cannot ever treat it simply as fever, and have done with it.

If we would find the indications wrapt up in fever, we must resolve it into its constituents. And in doing so we come upon groups and forms and qualities of very common things. And these common things are the same which, one by one or a few combined, we constantly depend upon to tell us what to do, and what means to use when we know of a specific or special remedy and cannot pretend to *cure* even in all cases calling for our interference from the ailments of abused health to the terrible emergency of the Plague.

CONSUMPTION OF OPIUM IN AMERICA. It appears from the entries of the Custom-house Department of the United States, that 300,000 lbs. of opium had been imported during the year 1860. Of this enormous quantity it is calculated that scarcely one-tenth has been used for medical purposes, so that the remainder must have been consumed in the preparation of intoxicating drinks. Lawyers, clergymen, and even physicians, across the Atlantic are said to indulge largely in opium-eating.

SCIENTIFIC ASCENT OF MONT BLANC. Dr. Wilhelm Pitschner, of Berlin, has been requested by the Prussian Government to make an ascent of Mont Blanc for scientific purposes. The doctor, who has already performed the feat once before, is this time to pass at least a fortnight among the ice-fields, and to be accompanied by twenty guides, including a member of the celebrated Balmat family. Dr. Pitschner is to be provided with numerous instruments, and a waterproof tent to be deeply imbedded in the ice, in order to bid defiance to the mountain storms, and protect the travellers from the drift-snow. Astronomical as well as microscopic observations, and experiments on the increase or diminution of ice and snow at great elevations, are to engage his attention.