THE IDEAL OF MEDICINE:

Being an Abstract of the Presidential Address delivered at the Annual Meeting of the Harveian Society, on January 6th, 1876.

By W. H. BROADBENT, M.D., F.R.C.P.,

Physician to St. Mary's Hospital.

AFTER reference to the affairs of the Society during his year of office, Dr. Broadbent proceeded to deliver the address. The object of this, as set before their President by the Society, being the advancement of medical science, he had been led to consider what it was to which medical science was advancing, and thus to inquire what ideal medicine would be.

The question was approached indirectly by an analysis of the qualifications of the ideal physician, who was described as accurate in diagnosis, and doing all that could be done in treatment for each case brought before him. Diagnosis—thorough knowledge—included a great deal: firstly, bedside morbid anatomy, an accurate estimate of the condition of the organ primarily diseased, and of the state of the tissues generally. But it also went back to the causes, to the constitutional peculiarities, hereditary or acquired, which had predisposed to the disease, on the one hand, and, on the other, to the external influence which had precipitated the attack; it traced the morbid processes set up, and foresaw the result, thus including *prognosis*. On what principles treatment would be conducted, opinions might differ. Some looked for a specific remedy for every disease; but inquiry in this direction Dr. Broadbent considered vain, pointing out that the term specific was used in two senses, as an infallible remedy for a given disease, and again as effecting a cure by some peculiar action of the nature of an antidote. Against the idea of specific mode of action he protested, saying that quinine was not a specific antidote to ague-poison, but that it cured ague in virtue of some relation between it and the system, in virtue of which also it brought down high temperature in other diseases. Mercury, again, was not an antidote to the syphilitic poison, but antagonistic to the particular form of inflammation set up by syphilis; and when the disease occurred in a constitution incapable of this form of inflammation, mercury was injurious—showing that its action was not on the poison, but on the morbid process. The treatment to which he looked forward would be based upon a knowledge of the deviations from the normal processes which constitute disease, and directed by a knowledge of the modifications which could be effected by remedial agents in normal and morbid actions in the economy.

Medicine must always be an art, as demanding so much individual action; not, however, in the same sense as sculpture and painting. It might be more properly called, like engineering, an applied science; and a consideration of the sciences applied in medicine would furnish an opportunity of estimating present shortcomings. It was not in the first of these—anatomy, normal and morbid—that the deficiencies were remarkable. Without saying that our knowledge of morbid anatomy was complete, it was so far advanced that the speaker considered that the attention of the Pathological Society might advantageously be turned from results to processes. Too exclusive a contemplation of *post mortem* conditions tended to fatalistic views, and to obscure the fact that a patient may be enabled to live on in spite of a lesion which cannot be repaired, and also that the early stages of disease are successfully treated.

In physiology, normal and morbid, greater deficiencies become apparent, though great advances are being made. Vital actions are being resolved into their chemical and physical factors. Normal processes are being referred to the laws of chemistry and physics. Morbid processes also are being investigated, as exemplified in inflammation, acute tuberculosis, pyrexia, the specific fevers, septicæmia, etc.; but that our knowledge is deficient is easily seen when we look at the different views entertained with regard to the mode of causation of a common cold. By some, a catarrh or other effect of exposure is referred to congestion of the internal organs in consequence of the blood being driven in from the skin; by others, to cooling down of the blood from imperfect contraction of the cutaneous arterioles, and incomplete exclusion of the blood from the skin; by others, again, to retention in the blood of the cutaneous excretion; by others, finally, the nervous system, which, on any hypothesis, is an intermediary, is held to be more than this, and to be accountable for the whole process. No discussion of these views, which are really less diverse than appears at first sight, was attempted, attention being claimed by therapeutics.

Therapeutics was practised before any science came into existence, men seeking and finding remedies for their hurts and ailments. Of course, this was entirely by experience; and many eminent men were

of opinion that experience was still our only safe guide, and that, in the treatment of disease, "the more the reason, the less the knowledge". The great masters of the past—Sydenham, Trousseau—are quoted as guided only by experience. Notwithstanding this, Dr. Broadbent looked forward to a time when medicine would be scientific, and attempted, so far as his lights went, to practise rational medicine now. To appreciate the writings of such men as Sydenham, we must have attained a certain high level of knowledge; and, if we have all to climb the same road, few can approach him; and as, with the decay of faith, the arts of sculpture and painting have seen their best days, so the modern critical spirit is destructive of authoritative teaching, and medicine will have seen its best days. There will still be uncertainty as to the use of remedies, incredulity as to their power, and a perpetual recurrence of the fluctuations in practice which have disgraced medicine. This he refused to believe. We had already a safeguard against the abuse of venesection in a knowledge of the conditions which it could effectually relieve, the chief of these being distension of the right heart and excessive arterial tension; and this knowledge would bring back into practice a therapeutic agent of great power. Similar results would be arrived at with regard to other important remedies. Theory is inevitable. The human mind will not be content to reason from particulars to particulars, but seeks general conclusions; and, these being arrived at, there is no safer guide to knowledge than deductions therefrom brought to the test of experiment. If medicine may not be rational, it will be irrational.

Ideal therapeutics, then, would not be based simply on experience; but while no remedial proceeding of ascertained value would be rejected because its action was not understood, treatment would only be satisfactory when directed, as previously said, by a knowledge of the modifications in normal and morbid processes which remedies could effect. In other words, we must seek to learn the exact physiological and therapeutic action of drugs. In this field of research, an army of workers is engaged; in spite of much confusion and uncertainty, many valuable results are already obtained, too many for enumeration here. Dr. Broadbent, however, goes farther than this; and considers it necessary that not only should the precise action of remedies be known, but that their mode of action, the relation between the substance administered and the organism, in virtue of which its effects are produced, should also be known. If, for example, the way in which quinine acts on the system in the case of ague had been understood, we should have inferred its power of reducing high temperature. An obstetrician gives a teaspoonful of laudanum to a flooding woman; he, Dr. Broadbent, would give this dose in sudden tympanites; there were, no doubt, many other critical opportunities for the employment of large doses of opium which we should recognise if we knew the secret of its action. Bearing in mind that all advances in physiology consist in referring the processes going on in the body to the laws of chemistry and physics, we may take these laws as the basis of deductions to be tested by experiment. One of these will be that chemical groups will form therapeutic groups; that bodies chemically like will have like action on the human system, or else some chemical explanation of the diversity should be possible. In giving in his Goulstonian Lectures at the College of Physicians such a chemical explanation of the difference between chlorine and iodine as therapeutic agents, and of the superiority therapeutically of iodine, the weaker substance chemically, Dr. Odling opened a new door to scientific therapeutics. His hypothesis that iodine has the powerful remedial action of which we avail ourselves in consequence of its weak chemical affinities, and that its compounds with potassium, sodium, etc., are broken up in the system, setting free iodine to exercise its oxidising and solvent influence, has since been experimentally confirmed; while chlorine, seizing at once chemically upon a base and holding it, is neutralised therapeutically. Other corollaries were mentioned, but time did not permit their full development; and Dr. Broadbent concluded his address by saying that we need to take advantage of every line of investigation which will help us to relieve and cure disease.

BRONCHIAL ADENOPATHY.—M. Parisot, in a summary read to the Société Médical de Nancy (*Revue Médicale de l'Est*, tome iv, November 15th) of a paper of M. Lereboullet on this interesting clinical subject, proposes the following conclusions. Bronchial adenopathy, very frequent, not to say constant, in the course of pulmonary tuberculosis, is especially characterised by the bronchial *souffle* perceived at the interscapular region, at the level of the third and fourth dorsal vertebrae. It is the effect, and not the cause, of the already existing pulmonary lesion; and although, by its frequency, it is a valuable diagnostic sign, nevertheless it is not so useful for recognising the outset of the disease as the symptoms furnished by percussion and auscultation of the summit of the lung.