The Harveian Oration

I.—I-EM-HOTEP, THE EGYPTIAN GOD OF MEDICINE; EGYPTIAN VIEWS AS TO THE CIRCULATION.

II.—REST IN INCIPIENT VALVULAR DISEASE.

Delivered at the Royal College of Physicians of London on Tuesday, June 21st.

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MR. PRESIDENT AND GENTLEMEN,—The officials, Fellows, and friends of this College assemble to-day, as we and our predecessors have assembled year by year for two centuries and a-half, to commemorate the services which William Harvey has rendered to mankind, and in order to keep alive in our minds the wise counsels which he addressed to us, the memory of which he desired us ever to renew at the festival which he founded. We are to honour our great profession, to continue in mutual love and affection among ourselves, and to search and study out the secrets of Nature by way of experiment, in order to prevent suffering and ameliorate human life.

In commencing the pleasing duty which the kindness of our President has placed in my unworthy hands, it is needful to comply with the desire of our founder that we commemorate the names of benefactors of this College. The lengthy and honourable roll was so fully dealt with by the learned orator of last year, that I shall merely add to his recital the names of those who since that time have given of their substance for the advancement of medicine. Dr. Horace Dobell, of Parkstone Heights, Dorset, gave the sum of £500 to encourage research into the ultimate origin, evolution, and life-history of bacilli and other pathogenic micro-organisms: Dr. George Oliver, Fellow of this College, of Harrogate, and Farnham, Surrey, has given £2,000 to found the Oliver-Sharpey Lectureship or Prize, in memory of William Sharpey of University College, and to encourage the application of physiological knowledge, for the prevention and cure of disease, and for the prolongation of life: Lady Clarke has presented to us a bust of our revered and lamented former President, Sir Andrew Clark.

No student of the works of Harvey can fail to bear in mind the great loss we have sustained this year, in the decease of Sir Edward Sieveking, who in his Harveian Oration, drew special attention to the *Prelectiones Anatomiae*, and in conjunction with Dr. George Johnson and other Fellows of this College, arranged for the admirable autotype reproduction of Harvey's Manuscript, which we possess.

Desiring to render this address as little wearisome as may be, I propose to divide it into two parts: the first archaeological, dealing with Egyptian medicine, the god of medicine, and the earliest inquiries known to have been made concern-

ing circulation and the circulatory diseases—namely, those of the physicians of ancient Egypt, a department of pre-Harveian work, and perhaps the only one, which has not been dealt with in this room. Secondly, I wish to speak with great brevity on the more practical subject of the preventive treatment of certain forms of circulatory disease.

I.

ANCIENT EGYPTIAN RESEARCHES ON THE CIRCULATION.

To all who love our venerable and beneficent profession the spectacle of our predecessors in early ages striving in darkness and difficulty to acquire that hidden knowledge to which we have partially attained is interesting, and should awaken our sympathy. As was remarked by the learned Harveian Orator of 1896, "The past is worth our study, and ever more so the further we advance."

The information which archaeological research has of late afforded, though in a fitful and partial manner, as to the earliest history of medicine, and particularly in regard to that department in which our founder laboured, is not unworthy of our attention.

The first evidence of definite inquiry, in any degree worthy to be called scientific by a body of men specially educated for and devoting their lives to medical service, occurs in the early history of Egypt. The ability, learning, and artistic skill shown during the early dynasties, which all Egyptologists recognize, is paralleled by the remarkable interest then manifested in medicine. Works on anatomy and medicine are stated to have been written even by the early Sovereigns of Egypt. Athothis, the son of Menes, who lived 6,000 years ago, is stated in the Berlin Papyrus to have written a book on medicine, and I shall soon have to quote from the anatomical writings of the Pharaoh Usaphais, one of his successors: Semti, the seventh monarch of the same dynasty, pursued similar investigations. It is clear, that, like the Greeks, these men in the childhood of the world believed that *ὑγιαίνειν μὲν ἀριστον ἐστίν*. Sanitation was to them the first of the sciences.

The Medicine God, I-em-hotep.

During the third dynasty, about the year 3500 B.C.

there lived a learned physician, probably a priest of Ra, the sun god, the founder of a cult, whose eminence was such that in course of ages he is deified, and becomes for later generations the special god of medicine.

His temoles were places of healing for the people. His name is I-em-hotep, meaning "he who cometh in peace." According to ancient inscriptions he was the son of a certain architect named Kanofer, but when raised in popular esteem to the rank of a demi-god he is called the son of the supreme god Ptah, the Hephaistos of Egypt, and he becomes one of the great god-triad of Memphis. I-em-hotep is described as the good physician of gods and men, a kind and merciful god, assuaging the sufferings of those in pain, healing the diseases of men, giving peaceful sleep to the restless and suffering: he is called the creative god who giveth life to all men, who comes unto them who call upon him in every place, and who gives sons to the childless. He was great in magic and all learning. He and his followers had to do with the embalming of the body, and he protected the soul of the dead man from all spiritual enemies after it had left the body. In the ritual of

Fig. 1.—Ancient bronze of I-em-hotep, Egyptian god of medicine.

embalment the dead man was encouraged by these words "thy soul uniteth itself to I-em-hotep, while thou art in the funeral valley, thy heart rejoiceth because thou dost not go into the dwelling of Sebek, but thou art like a son in the house of his father."

From the testimony of temple inscriptions and papyri as well as from the writings of Manetho it is clear that the temple of the medicine god I-em-hotep was established first in early times at Memphis, and there his priests carried on the work of healing; similar temples were also erected elsewhere. I-em-hotep was represented in art as a bald-headed man, usually in a sitting posture, bearing on his knees an open papyrus scroll, and holding in his hand the symbol of life. As the centuries and milleniums passed on his cult seems to have become more and more popular. In later times when Greek colonists appeared in Egypt they gave him the name Imouthes, and applied to his temples the Greek term "Asklepieia," clearly regarding him as alike in kind to the Greek Asklepios, and his temples as hospitals for the sick. The great temple stood outside the eastern wall of Memphis, close to the serapeum. Some of us who are present to-day, when visiting the site of the temple of I-em-hotep, have naturally been impressed by the thought that on this spot, long before Asklepios, or Hippocrates, commonly called the father of medicine, were born, probably before the Homeric poems were written, before the Israelites were in Egypt, before the stone age had passed, learned men devoted themselves to the consideration of the nature of human life, strove to prolong it, to assuage suffering, and to cure disease. They studied and treated many of the ailments familiar to us, such as tubercle, leprosy, plague, anaemia, and other diseases prevalent in Egypt to-day.

Near the site of this temple, securely sealed in an earthen vessel which had been hidden in the sand, was found one of the medical papyri from which I shall quote some passages. Doubtless it belonged to an early physician who sought, perhaps during the invasion of Ethiopian or other barbarians, to preserve for mankind the precious knowledge that seemed in danger of extinction.

Necropsies made by the Egyptian Priests.

It is of some interest to note that these priests of I-em-hotep, themselves learned men, not only saw and prescribed daily for vast numbers of sick persons, but also performed innumerable necropsies. They removed the heart, large blood vessels, viscera, and brain from the bodies of deceased persons, also from the bodies of sacred animals, prior to embalmment. The heart was placed in a separate jar by itself, the remainder of the viscera in a larger vessel, thus these men had an opportunity of learning something of anatomy; they may have gained some insight into the intricate problem of the action of the heart, the movement of the blood, and the changes of heart and vessels produced by disease; no nation of antiquity had such opportunities. Did they discover anything? I think I can demonstrate to you they did obtain a partial knowledge of the circulation; they did not solve the problem, but they approached it as nearly as did the Greeks, and probably from them the Greeks obtained such knowledge as they possessed in early times.

References to the Circulation in the Medical Papyri.

Certain of the contents of the medical papyri are at present almost incomprehensible on account of the difficulty of translating technical terms; these parts I shall not refer to at all; those portions which are more easily understood still present difficulties, and translations must necessarily be free and at times vague; where the sense is important I have had the help of one or two of the most learned living Egyptologists; and here I must express my acknowledgements to Dr. Rudge, Professor Kurt Sethe, Dr. Brugsch, Dr. Joachim, Dr. Leemans, Dr. Withington, Dr. Sandwich, Mr. Garstang, Professor Carrington Bolton, and others, for help orally or from their writings, without which, in my ignorance, I should have done little. Let me read you one or two extracts from the work of the Pharaoh Usaphais quoted in Ebers's papyrus, "Man hath twelve vessels proceeding from his heart, which extend to his body and limbs, two vessels go to the contents of his chest, two vessels go to each leg, two to each arm, two vessels go to the back of the head, two to the front of the head, two branches go to the eyes, two to the nose, two vessels go to the right ear, the

breath of life goes through them, two go to the left ear and through them passes the breath of death, they all proceed from the heart." The concluding sentence is the earliest example I know of the ancient superstition that the left side of the body is sinister and evil. This is very early anatomy professing to be at least 6,000 years old, we must not expect it to be quite accurate. Turning to a comparatively recent period, the only copy existing of Ebers's papyrus (found in a tomb at Thebes) was written in or before the sixteenth century B.C.; no doubt most, if not all, its contents are much older than that date: the passage which I am about to read commences thus, "From the secret book of the physician, a description of the action of the heart and of the heart itself. From the heart arise the vessels which go to the whole body: if the physician lays his finger on the head, on the neck, on the hand, on the epigastrium, on the arm or the leg, everywhere the motion of the heart touches him, coursing through the vessels to all the members" (the reference is clearly to the pulse), "thus the heart is known as the centre of all the vessels. Four vessels go to the nasal chambers, of which two convey mucus and two convey blood; there are four vessels within the temples or skull, from these the eyes obtain their blood; the four vessels divide inside the head and spread towards the hinderpart." The Berlin papyrus speaks of the division into thirty-two vessels within the skull, and implies that air traverses, at any rate, some of them. Returning to Ebers's papyrus—"When the breath enters the nostrils it penetrates to the heart and to the internal organs, and supplies the whole body abundantly," this idea that certain of the vessels convey air you will observe is identical with the Greek conception and probably was its source. "Three vessels traverse the arms and extend to the fingers: three vessels also pass down the leg and are distributed to the sole of the foot: a vessel goes to each testis, and one to each kidney. Four vessels enter the liver conveying fluid and air; these may be the seat of various diseases, as they are mixed with the blood. Four vessels convey fluid and air to the intestine and spleen; two go to the bladder, and from them the renal secretion is produced. Four vessels convey fluid and air to the lower abdomen, going to the right and left sides; from them is formed the alvine excretion." These vessels here described are clearly the iliac arteries and veins. "When the heart is diseased its work is imperfectly performed; the vessels proceeding from the heart become inactive, so that you cannot feel them" (no doubt this is a reference to changes in the pulse): "they become full of air and water. When the heart is dilated the vessels from it contain effete matter. If a suppurative or putrefactive disease occur in the body" (abscess, I imagine, for which various localities are suggested) "then the heart causes it" (apparently the septic material) "to traverse the vessels; fever or inflammation of various kinds occurs in the body; the heart is in a morbid state while the fever continues. In heart disease there is either disturbance of the action of the heart, or the heart is congested or over-filled with blood: the heart is moved downwards, comes nearer the precordia, and suffers weakness and nausea. When the disease affects the base or lower mass of the heart there is shortness of breath, the heart is displaced on account of the volume of blood from the abdomen" (probably the old idea of the rush of blood entering the heart from the liver). "There may be fever or inflammation of the heart." Now comes a passage of some therapeutic interest, "The heart during such disease must be made to rest to some extent if it be possible." Here we have wise advice from the ancient Egyptians, advice the importance of which we have scarcely as yet recognized, and which we may to-day follow with advantage. "If the heart is atrophied (or wastes itself) there will be an accumulation of blood within it. When the disease of the substance of the heart is accompanied by dropsy there is a lessening (in strength probably) in the ventricle or cavity. When the weakness of the heart is due to old age there is dropsy. When there is raising or increase of the heart, it presses towards the left side, it is increased by its own fat and is displaced, there may be much fat contained within its covering or pericardium. If in a suppurative disease the heart is pushed forward, it floats or sinks in the fluid and is displaced." Here we surely have a reference to pericardial effusion. "If the heart trembles or palpitates, has little power, and sinks downwards, the disease is advancing. When there is much beating at the precordia, with a feeling of weight, when the mouth is hot and languid and the heart is exhausted, the disease is a fever or inflammation." In another place (folio 102) the heart is spoken of as

being full of blood; which comes or flows from it again. In folio 39, after a description of symptoms, follows a statement to the effect that the heart is distended, the sick man is short of breath, because the blood has stagnated and does not circulate." This is an interesting expression, but judging from other parts of the papyrus the word translated circulate can only have a vague meaning, implying movement to and fro, just like the expression "*περὶ τοὺς αἵματος*" in the Hippocratic writings, which seems to imply the circuit of the blood, but in reality has only a similar indefinite meaning. It is evident that the Egyptian knew that blood flowed from the heart, but like the Greeks they never seem to have realized that the heart is a pump, nor did they recognize valves.

The Leyden medical papyrus speaks of a paralysis or disturbance of some sort in the blood vessels of the head, causing blindness and disorder in the body and in the limbs: this seems to be a description of the results of cerebral haemorrhage. Remedies are suggested to subdue the vascular activity occurring in certain diseases.

The various papyri from which I quote deal, of course, with practical medicine, and not with physiology: no distinct definition as to structure or function is to be looked for in them, only as associated with diagnosis, prognosis, or treatment do we get statements as to the nature of the heart, the vessels, and the movement of the blood.

Importance of Medicine and Sanitation of Ancient Egypt.

It is clear from the study of these medical papyri that medicine advanced considerably among the Egyptians, and from them medical and sanitary knowledge has descended to us by two channels, namely, by the Greeks and through the Jewish race, while probably much of it was lost irrecoverably. Josephus quotes from Manetho a statement that Osarsiph, who Josephus says was the great Hebrew leader Moses, was a priest at Heliopolis, where medicine was taught. It is highly probable that the sanitary laws of the Jews were derived from the Egyptians. Just as the Jews remembered the diseases of Egypt (Deut. xxviii, 60) so they also remembered the sanitary and remedial measures they had learnt there.

Those of us who have seen in the later excavations at Knossos the evidences of sanitary knowledge of a somewhat high type, possessed by the Cretans at a remote period, exemplified by drainage pipes scarcely excelled by our own to-day, knowing, as we do, the close connexion between Crete and Egypt, may well believe that here we have an example of sanitation derived from Egyptian sources.

In England we have overlooked the importance of Egypt as a primary source of the science and art of medicine. If we regard with reverence the dim traditional form of Asklepios as a founder of our art, and the Asklepieia where throughout Greece and Magna Graecia medicine was practised and taught, in greater degree should we reverence the much more vener-

able I-em-hotep, and view with interest the primaevae medicine temples and hospitals of Egypt. In the ancient writings of the Pseudo Apuleius, Hermes is described as speaking to the youthful Asklepios as follows: "Thine ancestor the first discoverer of medicine hath a temple consecrated to him in the Libyan mountains near the Nile, where his body lies; while his better part, the spiritual essence, hath returned to the heavens, whence he still by his divine power helps feeble men, as he formerly on earth succoured them by his art as a physician."

Probably many of the present audience have seen in the Cairo Museum the sepulchral stele of Shemkhetnankh, a great physician of the fifth dynasty, who was contemporary with King Sahura, and who is described in the stele as the Principal Physician of the Royal Hospital. His name, which is doubtless a title given to him by the monarch, means "he who possesses the things that give

life." It is interesting to find that five thousand years ago a hospital should exist associated with and under the patronage of the Pharaoh, and having its own staff of physicians. And it is manifest that our calling held a distinguished position at the time when art and learning in Egypt were at their zenith.

Testimonies as to I-em-hotep.

I-em-hotep rises before us as one of those intellectual giants who take all knowledge for their province. In his compre-

hensiveness he surpasses Leonardo da Vinci, or our own Linacre. He is distinguished as a physician, a minister of the king, a priest, a writer, an architect, an alchemist, and an astronomer; great in all, but greatest in medicine, in the view of Egypt he is a god. In the reign of Tosorthros, of the third dynasty, some five thousand years ago, we meet with the wise I-em-hotep in an inscription referring to the seven years of famine which befell Egypt in consequence of a succession of low Niles. He is there the adviser of Pharaoh, to him the king applies in his trouble for counsel and help. In the inscriptions in the temple of Edfu he is described at length as the great priest I-em-hotep, the son of Ptah, who speaks or lectures, perhaps his discourses or lectures were on medicine. Elsewhere he is described as the writer of the divine books. It may here be remarked that probably Ebers's papyrus was one of the six divine books attributed to Thoth ceremonially, but not improbably in large part the work of I-em-hotep. Manetho, while speaking of his eminence as a physician, refers to him also as an architect, the first to build with hewn stone. Not improbably he built the step pyramid of Sakkara, the tomb of his

Fig. 3.—Temple of Edfu, founded by I-em-hotep,

patron Tosorthros. Manetho also suggests that I-em-hotep improved and completed the hieroglyphic script of Egypt. In the Hermetic literature he is famed for his knowledge of astronomy or astrology; the Westcar papyrus describes him further as an alchemist and magician; these powers were always associated with medicine, and even to-day in the popular view are not entirely dissociated from it.

What share I-em-hotep may have had in these early discoveries of the movement of the blood we do not know; it does, however, seem clear that the Egyptians had discovered certain elementary facts, and knew as much as the Greeks, as much as we find in the Hippocratic writings or in those of Aristotle and the later Alexandrian school, and the hypothesis seems a natural one that the knowledge possessed by the Greeks was acquired from Egypt.

Methods employed by the Egyptian Physicians.

I may mention, in passing, that although the medical papyri which have come down to us are no doubt only an insignificant fraction of those possessed by the Egyptians, we nevertheless find in them abundant reference to medicine and surgery. In the Kahun papyrus obstetrics is dealt with. Gynaecology, also ophthalmology, materia medica, and dentistry are dealt with in others, and even veterinary medicine was treated of in a papyrus, a fragment of which was found by Professor Flinders Petrie.

As regards materia medica the Egyptians possessed the following drugs: Lactuca; various salts of lead, such as the sulphate, with the action of which in allaying local inflammation they were well acquainted; pomegranate and acanthus pith as vermifuges, peppermint, sulphate and acetate of copper, oxide of antimony, sulphide of mercury, petroleum, nitrate of potash, castor oil; opium, coriander, absinthe, juniper (much used as diuretic), caraway, lotus, gentian, mustard, ox gall, aloe, garlic, and various bitter infusions; mandragora, linseed, squills, saffron, resin, and various turpentine products; cassia, certain species of cucumis, cedar oil, yeast, colchicum, nasturtium, myrrh, tamarisk, powdered lapis lazuli, vinegar, indigo; the oasis onion, mastic and various gums, mint, fennel, hebanon or hyoscyamus, magnesia, sebeste (a tonic and a cough medicine), lime, soda, iron, and a great number of other agents the names of which no one can at present translate.

Surgical instruments and the actual cautery were in use, also steam inhalations, massage, ointments, plasters, poultices, suppositories, injections, and emetics, and the importance of temperature in disease was recognized to some extent.

Prescriptions were written out in due form, and sometimes at great length, fully equalling those of the most enthusiastic therapeutist of our own day. The longest prescription I have read contained thirty-five ingredients. To read it was a formidable task; to take it I should think a perilous one. Some prescriptions are wise and rational, a few strange and repulsive; some are associated with charms and spells. Human nature is the same in all ages; hence one was not surprised to meet with hair invigorators, hair dyes, cosmetics, pain killers, insect powders, and a soothing syrup containing opium, for small children, in use 3,500 years ago. It was rather interesting to find that the symbol for a $\frac{1}{2}$ tenat, often used in their prescriptions, is identical with that indicating a drachm with us, though the amounts are not the same. I trust the drachm will soon be as obsolete as the tenat.

II.

A SUGGESTION IN REGARD TO PREVENTIVE TREATMENT OF VALVULAR DISEASE.

I have referred to certain facts, mostly of recent discovery, bearing on the existence of our profession in the remote past, and to the partial knowledge to which the priests of I-em-hotep attained as to the circulation of the blood, a subject not without a certain interest; but, the advances of that knowledge made subsequently which have on more than one occasion been dealt with in this room, those now making, and those yet to be made in the future, are of more practical importance to us. Harvey first clearly unfolded the great secret of the course of the circulation, thus opening a wide door for the work of others, physiological and therapeutic. The principles of blood pressure, the action of vasomotor nerves, and other advances have followed; we have attained to a larger, though I believe as yet only to a partial and provisional, hold of truth in these matters. As such we shall regard our knowledge if we are wise; the great mistake in all times has been that of believing that the truth already attained was the whole, and that nothing remained behind. Our father Harvey has exhorted us ever to search, and to study out the secrets of Nature by the way of experiment. Will you pardon me if I devote the remainder of this paper to a brief description of an experiment dealing with a yet unsolved problem in the pathology of the circulation, to

which I have devoted twenty-five years of my life? It is better to speak on a novel point, with which one is fairly well acquainted, though it be of minor importance, rather than to utter commonplaces on greater questions with which every one is familiar. Valvular defect is one of the most important and perhaps the most common of circulatory diseases. It is one which probably we shall never be able to cure, and is thus one of the opprobria of medicine; is it possible to treat it by prevention? This is the problem upon which I wish to speak a few words. I am the more encouraged to do this because I know that various Fellows and Members of this College hold similar views to those I desire to unfold.

Joints Recover: Why does the Endocardium Fail to do so?

There are in this audience many who have treated cases of acute rheumatism and cases of valvular disease in hundreds of instances. We are all aware that in acute rheumatism, however severe the joint lesion may be, however great the swelling, the pain, the local pyrexia, and the effusion, yet in the large majority of cases after the usual treatment all these grave symptoms subside, or if they linger in any joint many of us know how certainly they will vanish if we stimulate the trophic and vasomotor nerves by small blisters applied to the adjacent skin; the final issue in most cases being the restoration of every joint to a normal condition.

But alas, we also know that when the endocardium covering the mitral or aortic valve cusps is in like manner attacked, a like restoration does not take place spontaneously, excepting in few and rare instances. When regurgitation through the valve, shown by an apex *bruit* with accentuation of the second pulmonary sound has occurred in acute rheumatism, if, after treating the rheumatism, we leave the affected heart to its own course, and the patient to his, persistent *bruit*, persistent pulmonary accentuation, hypertrophy, dilatation, in fact lifelong heart disease, and its train of attendant evils follow in a large majority of cases, and mar or shorten life.

Why should the rheumatic heart be so much more intractable than the rheumatic joint?

The Rheumatic Joint Rests but not the Rheumatic Heart.

No doubt the reason is that the joint can rest. The merciful influence of pain in the part affected insures repose for each affected joint. Suppose it were otherwise, imagine pain absent, and conceive for a moment that we could flex and extend an acutely rheumatic knee or elbow sixty or eighty times per minute continuously, what would be the fate of the joint? Is there any probability that restoration would follow? Few of us I think would expect it, for it is a physiological law that repair in a diseased organ cannot coincide with full functional activity. When the endocardium and valve cusps are inflamed, pain does not give the signal for rest, for indeed, pain or no pain, the toiling heart cannot intermit its labours.

Disastrous Results of Valvulitis if not Specially Treated.

During my thirty-five years of experience as a hospital physician and in private I have watched with special interest the fate of the numerous cases of endocarditis which came under my charge, endeavouring, as far as possible, to trace the later history of such cases for a lengthened period. During the earlier years I merely treated the rheumatism, believing, as I had been taught, that little or nothing could be done to prevent disaster to the heart. I had the pain of discovering that many—indeed, most—of these cases merged into permanent valvular disease. This distressing experience induced me to experiment on various methods of preventive treatment. Of these, one has apparently proved successful, and has been constantly employed by me for twenty years.

The method is very simple; it is merely to give the heart the same advantages, the same opportunities for repair, so far as we can, as the joints enjoy; in other words, the most absolute quiet is enjoined; the patient lies with head at a low level; pain and fever are subdued; no excitement is permitted. The patient is made as comfortable as we can make him, and sleep is encouraged; in fact, we seek to attain physiological rest. We follow the precept of our ancient Egyptian brother, declared so many thousand years ago; we give the ailing heart the nearest approach to quiescence that is practicable. In addition, we administer sodium or potassium iodide, partly to help in the absorption of morbid exudations, but chiefly to lower vascular tension, just as we give those drugs in cases of internal aneurysm. Lastly, we endeavour to

influence the cardiac vasomotor and trophic nerves reflexly by gentle and almost painless stimulation of those cutaneous nerves which we know from physiological data and from the evidence of the referred pains of angina to be in close relation with the heart, namely, the first four dorsal nerves.

I believe, however, that by far the most important factor in the abortive treatment of endocarditis is rest, rest for many weeks, the slowing of the heart, the lengthening of the diastole, which is the only rest-time possible, the careful avoidance of high blood pressures, which the weakened and softened valve cusps cannot sustain without peril, and the diminution of the volume of blood to be moved. Only then, when functional activity is minimized can we hope for repair of mischief, reformation of destroyed endothelia, and absorption of effusion in the valve cusps. Moreover repair is only possible during the early stages of endocarditis, later the mischief is permanent, unalterable by any form of treatment.

I submit that these measures are rational, their objects being, by affording rest, to give opportunity for the exercise of the *vis medicatrix Naturae*, which is our sheet-anchor; may, indeed, to stimulate that natural reparative process which alone can effect restoration.

Two Objections to the Proposed Method.

It may be objected that there are two difficulties in our path. First, in regard to diagnosis: How are we to distinguish the signs of commencing endocarditis from those of mere dilatation?

In the great majority of instances in which marked and continuing *bruit* occurs endocarditis is present, and not mere dilatation, but I admit that in some cases discrimination is difficult. The wisest course is, if in doubt, treat as endocarditis. Secondly, some physicians complain, as those at the Johns Hopkins Hospital have recently done, that they find difficulty in inducing private and hospital patients to submit to a sufficiently long period of rest. Occasionally that is so in the case of foolish or thoughtless persons, but in general, if the danger to which the heart is exposed be calmly and plainly stated to the patient, and also if the hope of perfect recovery be held out to him through the agency of prolonged rest, he will agree to give this method a fair trial. Such at least has been my experience.

Successful Results Obtained.

For twenty years continuously this method has been carried out. The results have been striking. The comparative absence of permanent heart disease after endocarditis has been in marked contrast to its frequency prior to the adoption of the treatment by rest. So striking, indeed, is the change that I confess it now seems to me that it would be an immoral act on my part to omit these measures in any recent case of endocardial disease.

If we make it a rule to watch carefully for incipient valvulitis, and, if when we find it we secure for the heart prolonged rest, I believe it is in our power to diminish in a most material degree the frequency of chronic valvular disease of the heart.

An Address

ON

THE IRISH POOR-LAW MEDICAL SERVICE.

Delivered at the Annual Meeting of the Leinster Branch of the British Medical Association.

By JOSEPH O'CARROLL, M.D., F.R.C.P.I.,

Physician to the Richmond, Whitworth, and Hardwicke Hospitals, Dublin; President of the Branch.

THE LEINSTER BRANCH.

GENTLEMEN.—I thank you for electing me to the honourable position of President of the Leinster Branch of the British Medical Association, though I profoundly regret the sad occasion of my promotion. By the death of Sir Philip Smyly the medical profession in Ireland has lost one of its chief ornaments and most respected members, and you have lost a President whose skill in public affairs and invariable courtesy in dealing with men of all opinions would have lent dignity to your deliberations. During the past year also we have had the misfortune to lose Sir George Duffey, the founder of this Branch. He was a tower of strength to any cause which he embraced. Men felt that he was single-minded and safe to

follow, and so this Branch rapidly became a success. Still more recently we have lost a former member who had also been President of the Irish Medical Association, in the person of Dr. Austin Meldon, who to great ability and great interest in the welfare of our profession joined a geniality of disposition which fitted him to be a connecting link between the most discordant elements. It is largely to men like Smyly and Duffey and Meldon that the profession in Ireland owes the social and academic position which it has so long enjoyed, and which it must be our aim to assure in the future.

My position is not made easier by the fact that my immediate predecessor has been Dr. Finny. No more earnest President has ever occupied your chair, none who has more fully sacrificed his time to your business. His year of office has been an exceptionally busy one, inasmuch as it has witnessed the reconstruction of the British Medical Association, a new birth which has entailed a vast amount of labour on all who were concerned in it. I confess that I would have striven to direct your choice of a president in succession to him to other shoulders than mine, but that I thought it would be a discourtesy to you not to take up the honourable burden entailed by having been one of your vice-presidents. I am encouraged by the hope that I may rely for help in my difficulties on Dr. Craig, our able representative on the General Council of the Association, and on our secretary, Professor White, whose untiring energy and tact are only equalled by the skill with which he manages to persuade us that it is we, and not he, who are doing all the work.

THE MAYO RESOLUTIONS.

The British Medical Association is at once a scientific society and a political organization. Its work in science is attested by the production every week of a JOURNAL which is one of the best exponents of medical progress in the world. In politics it confines itself to forwarding and defending the interests of the profession, not as a trade society or a social caste, but as an important and necessary member of the body politic, whose mutilation or restricted growth would mean detriment and often more than detriment to the whole community. Thus it has ever been foremost in advancing questions of sanitation and preventive medicine, and when it has pushed what seemed special professional interests, as in its advocacy of improvement in the Army Medical Department, it has been proved by subsequent experience to have been doing a great public service.

In April last year this Branch issued a circular to all of its members who were in the Irish Poor-law service inviting them to a conference on the grievances under which that service confessedly labours. As a result of that conference we adopted what are known as "the Mayo resolutions," thus bringing ourselves into line with the Irish Medical Association in demanding for the Poor-law medical officer a fair return for his labour, an annual respite from toil, and a pension for his declining years. The movement for the amelioration of the Poor-law Medical Service, already far advanced in Ireland by the energy of the Irish Association, was thus formally put in train for discussion at the Annual Meeting of the British Medical Association at Swansea. Transferred to an arena that could not be suspected of local bias, the statement of the grievances of our Poor-law Service made by Dr. Frederick Kidd so impressed the Representative Meeting that the Mayo resolutions forwarded by us were adopted with enthusiasm, and Dr. Leonard Kidd, the President of the Irish Medical Association, was elected by a large majority to represent our views on the Medico-Political Committee of the Association.

THE REPORTS OF SURGEON-GENERAL EVATT AND SIR WILLIAM THOMSON.

At this juncture the Editor of the BRITISH MEDICAL JOURNAL, who had attended and spoken at our Annual Meeting last year, with something of that reasoned precipitation which so often wins battles, sent over a Commissioner on the part of the JOURNAL to inquire into the conditions of the Poor-law Medical Service and the measures necessary for its amelioration. The result of that inquiry has been a report which to my mind is one of the most valuable documents ever presented to the public on an Irish social question, and is equalled only by the report on the same subject prepared by Sir William Thomson for the BRITISH MEDICAL JOURNAL in 1892. The labour undertaken at that time by Sir William Thomson can hardly be fully estimated now. To read hundreds of replies from men who