as cancer. I lately examined the case of a primary tumour of the leg, removed by Mr. Croft, and afterwards a similar tumour arose in the stump, and finally within the pelvis, and from all these tumours we obtained preparations showing precisely what is regarded as cancerous structure. There is no doubt that sarcoma may often assume an alveolar arrangement, and the question will then arise whether alveolar sarcoma and true cancer are at all different. The above cases are almost the only ones I have been able to find of a tumour with a distinctly alveolar structure arising from the limbs, from bones, from fibrous tissue, or any connective-tissue structure, which have been recorded of late years, or in which the structure has actually been figured.

One other large class of tumours, commonly described as cancerous, are those arising from lymphatic glands,—those, for instance, which arise in the mediastinum and the bronchial glands, formerly the intra-thoracic cancers which have been brought before us so completely by Dr. Bennett. Many of these tumours are in the highest degree malignant, and that they should be called cancer in the physiological sense cannot be doubted. Their local infectiveness is sometimes extraordinary, equal to, if not surpassing, mammary cancer. One case is mentioned in which a tumour of this kind, beginning at the mediastinum, affected a great part of the lung, also the pericardium, and formed masses covering the heart. Most of these tumours, however, have a very simple structure. The cells are precisely like those of the lymphatic glands, and what stroma or connective-tissue structure there is, has very much the simple outline of lymphatic glands. I cannot say that I have seen a case in which the structure was precisely what would be called cancer in the restricted sense I have mentioned. Still such tumours have been described by highly competent observers. I conclude, then, that it is possible, though not common, for mediastinal tumours to assume a type of alveolar growth called cancer, and that there are such things as cancers arising from connective tissue. The law of development on which Remak insisted is by no means absolutely proved by the laws of the occurrence of tumours, since growths resembling those which arise from epithelial structures may also, though rarely, be derived from the connective tissue. I conclude that distinct types of structure may be marked out, which it is convenient to call cancer; that this arises in a great majority of cases from epithelial structures, surfaces, or glands; that there are two classes of these—namely, epithelioma and gland cancer, and that these are both highly malignant, though in not quite equal degrees. This enumeration does not exhaust the class of malignant tumours. Certain other forms of sarcoma, lymphoma, or lympho-sarcoma are also extremely malignant, and there are rarer cases in which simple tumours also are malignant. The property of malignancy does not belong to any single type of growth, or even to several types, but is rather met with in several classes in unequal degrees. The most malignant form of cancer is that called encephaloid, next the round-celled or medullary sarcoma, and with which I should put lymphatic tumours. Colloid cancer is malignant in a less degree. Next come epithelioma, osteoid cancer, spindle-celled sarcoma, glioma, myeloid sarcoma, myxoma, enchondroma, fibroma, and, finally, the simple-tissue tumours which are malignant only in the very rarest instances.

A few words as to secondary tumours, which exhibit in many respects the characters of cancer. The channel of communication between primary and secondary growths is very often through the lymphatics, but sometimes directly by the bloodvessels. Cancer of the abdominal organs may in this way be carried by the portal system into the liver. With regard to other parts of the body, secondary tumours more often arise in the lungs. The evidence of vascular distribution is, in fact, precisely of the same kind as in the case of pyæmia, but even stronger, for we almost invariably find that when the poisonous matter is introduced in any way into the blood, it is arrested by the first set of capillaries through which it has to pass. What is the virus thus transmitted? The most obvious supposition is that an actual transplantation of texture—that is, of cells—takes place, and that these cells take root and vegetate in their new site. Virchow has supposed that some seminal principle, or seminum, is carried from one part to another, and stimulates the tissues of the new part to a new growth similar to that of a primary tumour; but no such substance as this is actually known, and it is difficult to form any conception of what it would be like. It must be something that can only be compared to the spermatic cells. This comparison is, indeed, made by a German pathologist, but we should be cautious in admitting such purely hypothetical statements. Waldeyer says that secondary growths arise wholly from a germination of transplanted cells. This is certainly too absolute and hasty a statement. I referred to a case in the first lecture where there were undoubtedly secondary growths produced from germination of the tissues of the omentum—a process I should like to compare with that of the skin-grafting, in which there has been observed both a germination of transplanted cells and a germination of the tissues on which they are transplanted. In what way the cells influence the growth of their new matrix is of course doubtful, but it seems more likely that there should be something resembling the conjugation of sexual elements than that there should be some unknown physiological stimulus. In any case, the primary tumour must be regarded as the centre and origin, and the others as secondary products. If this be the case, we may perhaps see some answer to the question which has often been asked, whether cancer be a local or a constitutional disease. The answer to this question might be the whole series of facts which I have already laid before you. This is the moral of the whole story, and if the tale does not tell its own moral, it must have been very badly told.

Address
TO
THE HUNTERIAN SOCIETY.*

Delivered March 12th, 1874,

BY ROBERT BARNES, M.D.,
PRESIDENT.

FELLOW-MEMBERS OF THE HUNTERIAN SOCIETY,—I am sure you will believe that no ordinary obstacle would have prevented me from offering at the proper time my grateful acknowledgments for the signal honour you have conferred upon me by electing me your President. The only apology I will offer is, that the many trying preoccupations which have recently pressed upon me prevent me from expressing my feelings to you in a becoming manner. I feel your kindness the more deeply because it proves that you have not forgotten me in my migration to the West. I can only assure you in return that "*cœlum non animum mutavi.*" As time wears on, as the aspirations of our early career give way to the experience and reflection of maturity, there are few things that bring more solid satisfaction than to find that we have earned and retained the confidence and the friendship of those with whom we have worked. Many are the pleasant evenings which I have passed here—evenings rendered doubly profitable by that happy blending of friendly intercourse and scientific discussion which so eminently distinguishes the Hunterian Society. I do not know any Society in which the graceful art of mixing the useful with the sweet is better understood. Every Society has a character of its own impressed upon it by the conditions of its existence, and, I may add, by the spirit which presided over its foundation. Imagination, carried back to the day when our revered friend Dr. Cooke conceived the idea of founding this Society, easily realises what his earnest and sympathetic mind discovered amongst his brethren practising in this busy centre of life. There was yearning for friendly association; there was thirst for knowledge. He saw, or rather he felt, that these two imperious longings, struggling as they did in the same breasts, were to be satisfied by one and the same measure — namely, by bringing the men together.

De Quincey has well said, "If in this world there is one misery having no relief, it is the pressure on the heart from

* Published at the request of the Society.

the Incommunicable." This misery—for such it must have been—weighed with peculiar oppression upon the hard-worked medical practitioners of the East of London, cut off as they are to a great extent from association with their brethren in the West, where many Societies flourish. That pressure on the heart of the Eastern medical world has found relief in the working of the Hunterian Society.

Gentlemen, whenever I think of this Society I cannot help paying my homage to its founder. Founders are of the elect. The creative power, the divine attribute, descends only upon a few men of generous mould. To have known such men is to feel oneself ennobled. The tendency and character of the Society are summed up in its history. And I think it is not paying undue honour to that wise and good old man, whom we all of us remember with affection, to say that its history was foreshadowed in his mind when, more than fifty years ago, he founded the Hunterian Society. Herein it is that we may realise how useful and ennobling a thing it is to have a history whose course was determined from the beginning by the inherent necessity of representing the mind, intellectual and moral, of such a man as Dr. Cooke. The initiative faculty, which prompts to the conception of new designs, is often at its strongest in young men. But it is more rare to find united with it the power of informing other minds with the creative thought, and of persuading other men to join in giving to that thought the name of action. Yet both these qualities were happily united in Dr. Cooke. He succeeded because by his intelligence he inspired respect; because by his clearness of judgment, strength of purpose, and sterling honesty he inspired confidence; and because by his kindness of heart he charmed his associates into sympathy with his aspirations.

It is given to few men to witness such complete crowning of the edifice of their early ambition as was vouchsafed to Dr. Cooke. During half a century the Society, whose starting he had inaugurated, grew and formed itself under his judicious administration, by his scientific co-operation, and by his bright example of gentle courtesy in all his personal relations with his fellow-members. I delight to think that, cherishing his memory, we are still animated by the same love of science applied to the relief of human suffering, and that we still feel the gentle influence of a spirit whose every movement was fruitful of good.

The traditions and character of the Hunterian Society have been admirably sustained by a long line of presidents, all of whom have been or are men of mark, and many of whom may be said to have been in a large measure the scientific offspring of the Society. I do not pretend to repeat what has been so well told by Dr. Fotherby in an oration which records a history that will always be read with pleasure by present and future members of the Hunterian Society; but I hope I shall not trespass too much on your indulgence if I offer a few brief observations on the place which the Hunterian Society appears to occupy amongst the kindred Societies of this metropolis. Medical Societies, in their individual and aggregate character, constitute what may be called the Republic of Medical Science, exerting a powerful influence over the organisation and conduct of the members of the profession. They are practically open to every member of the profession. In them every man has his opportunity. They are great Schools of Medicine, in which the higher education of its members is carried on after they have left the hospitals. It is one of the greatest charms of practice in a large town—one that compensates for the loss of the glories of nature and the serenity of a country life—that we can meet together to talk over our experiences, and to enlarge our knowledge by imparting what we have learned to each other. The country practitioner, pursuing his useful toil in a comparatively isolated circle, can hardly realise as we can the truth of these grand words of Shelley:

> "True love in this differs from gold and clay,
> That to divide is not to take away.
> Love is like understanding, that grows bright
> Gazing on many truths."

No words could more happily express the general truth of the oneness of Love and Understanding; and no Society can show a better example of it in practice than ours.

It is in our Medical Societies that men are formed, trained, and moulded to their work. By meeting men who have drawn their elementary knowledge from different hospitals and different schools we learn to discard local prejudices, and to cull the good from many sources. The Medical Societies offer the best field for the cultivation of those qualities which make up an effective teacher. And more than this: having trained and fitted a man to be a teacher, having given him the opportunity of proving his fitness in the eyes of the most competent judges, their testimony will often carry him by irresistible opinion to the coveted place. In this way our Medical Societies exert a most wholesome influence in supporting merit against nepotism. No vaporous windbag can successfully encounter the ordeal of a Medical Society. No dishonest quibbler can escape reprobation and contempt.

In the West, where there is more leisure, more time to reflect, Societies abound. In the East, where the practical work is more engrossing, Societies are few. Hence, in the West, we find medical science is more cultivated on the principal of subdivision of labour. Medical science, whose elements are really indissoluble, is by an arbitrary process cut up into parts, to each of which a special Society is devoted. That great benefits result from this practice cannot be denied. But a Society in which medicine can be studied in its grand unity, in which those whose practice and studies are more or less bent in a special direction can meet on common ground, and who are thus compelled to see the mutual relations of the different branches of their art, is after all the most instructive, and offers the purest type of what a Medical Society should be. Such is the constitution of the Hunterian Society. It elicits and diffuses a knowledge of medicine, surgery, and obstetrics in their abstract, scientific, clinical, and pathological aspects. But it is above all a clinical Society. Composed of men actively engaged in the practical work of coping with disease, the want that is most urgently felt is to learn from each other more of the nature of disease, and how to improve their capacity to deal with it. Our discussions here, then, are of an eminently practical character. And, owing partly to another peculiar feature of this Society, these discussions exhibit more of the spontaneous life and frankness of friendly conversation than of the more formal and studied debates of other Societies. Our proceedings are not as a rule published in the medical journals. I am far from contending that this want of publicity should be the rule; but I am not sorry that there is one Society at least where the members can interchange thoughts freely, unrestrained by the fear of criticism beyond the circle of their friends. In such meetings as ours no one, however young, however small his experience and great his diffidence, is deterred from stating facts which seem to him pertinent to the point in discussion, or from asking questions which often elicit information welcome to all, and which help to sustain the interest of debate. And now and then our elastic constitution has enabled us to get up a debate which has attracted men of reputation from all parts of the town, and the reports of which have been read with eagerness wherever our medical journals penetrate. I believe that it is wise to adhere to the customs under which institutions have flourished. A little reflection will often show that those customs are the direct results and expression of the conditions under which the institutions exist.

Whilst then, as a general principle, I admit that the publication of a Society's proceedings is a debt due to science, and to our brethren, who by the force of circumstances are precluded from being present at its discussions, I would cherish the old customs which have sprung up in this Society, which mark its individuality, and which meet our wants. An institution which has stood the wear and tear of more than half a century may be presumed to possess a sound constitution. No profession studies constitutions more carefully than we do. Our patients trust us because, rightly or wrongly, they acquire the belief that by observation we have learned to "know their constitutions." At any rate we know the constitution of the Hunterian Society. Its conservation is in our hands. There is no reason to doubt that, if we refrain from rashly trying it, that constitution will survive for many half-centuries, diffusing the blessings of friendship and of knowledge to many generations of our successors.

A WIDOW named Lenoir, who died in Paris last week, bequeathed ten millions of francs to found an asylum for old and infirm people.