gives details of the incidence of cancer in the different districts of the county of Armagh; this deserves even closer investigation, with special attention to differences in age distribution, occupation, and conditions of life among the local populations. From statements collected from various medical men, and included in the same publication, it appears that in a large number of cases of cancer in Ireland there had been other sufferers from the disease in the same family, while in some considerable number the disease appeared to be related to a tuberculous taint. In order to estimate the value of these facts it would be absolutely necessary to ascertain the proportion which such cases bear to the total number of cancer cases observed.

On the question of the relation of tuberculosis it may be noticed that the district of high cancer mortality is one in which the mortality from tuberculosis is about equal to the average for all Ireland; this would indicate that there is no close connexion between the two diseases.

(To be continued.)

THE MORISON LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE NERVOUS AFFECTIONS OF THE HEART.

THE second lecture of the present series, which was delivered by Dr. G. A. Gibson on March 4th, was devoted to disturbances of rhythm. The lecturer pointed out that many of these disturbances were independent of nervous influences, and that the term nervous affection could, therefore, scarcely be regarded as applicable to such cases. Seeing that they had to be compared, however, with disorders of rhythm, it was necessary that they should be referred to in any discussion of cardiac nervous affections. He showed that it was now clearly understood how, by means of the muscular connexions discovered by His, it was possible to explain the wave of automatic contraction travelling over the heart, and pointed out that, in addition, some of the nervous structures might assist in this propagation. That irregularity of the heart had been usually regarded from a point of view too pessimistic was strongly urged, and from examples amongst animals endowed with fleetness and endurance the lecturer proved that irregularity was often of little significance.

The origin of alterations in the rhythm of the heart was shown to depend either upon changes in the contents of the auricles—the normal stimulus to contraction—or to interference caused by the nervous system. Of the former, or intrinsic, causes, the infective toxins, the chemical poisons, debility of the heart wall, inflammatory affections of the pericardium, endocardium, and myocardium, and increased resistance to outflow, were the most important. Of the latter, or extrinsic, causes, reflex and direct nervous influence were to be considered. Reflex nervous influences might arise from disturbance of viscera in many different parts of the body; direct nervous influences might be either functional or structural in their origin. They might be produced by some irritation of the vago accessory; by interference with the cord or brain; or, lastly, by purely psychical influences, as in emotional disturbance. It was shown that but little was known of the accelerator mechanism of the heart as contrasted with the inhibitory.

Of simple irregularity it was shown that there were two main forms—one which was arrhythmic and one which was rhythmic. Many of the examples of irregularity produced by intrinsic or cardiac causes were of the rhythmic type, while, on the other hand, almost all of the examples produced extrinsically through the nervous system were arrhythmic. Several varieties of the rhythmic type of irregularity were described and illustrated. The special type of irregularity known as the *pulsus paradoxus* was specially analysed and illustrated by means of two excellent examples. It was shown that this particular symptom, in which with inspiration the pulse lost its force and at the same time became less frequent, was not always confined to mediastinal pericarditis, but occurred in ordinary adherent pericardium, in simple pericarditis, and even in debility of the heart. The last form of irregularity which was considered was cardiac hemisystole or contraction of one side of the heart, while the other did not pulsate or beat somewhat feebly. First suggested by Skoda, and afterwards revived by Leyden and Roy, the explanation

had been difficult to accept on account of what we knew regarding the structure of the heart. Mackenzie, however, had published some tracings which showed that this condition was, to say the least of it, possible.

The last part of the lecture was devoted to the treatment of disturbances of rhythm. It was shown that the symptoms must in every case be traced to their source and treated according to their causes. When the morbid symptoms were the result of toxic agents, the first indication was to get rid of them. In the case of the microbic toxins time alone would serve to bring about their disappearance, but tonic remedies assisted in the process of recovery. As regards the chemical agents, the first point was to cease using them and to employ the nervous tonics. When the symptoms were due to weakness of the heart itself it was very interesting indeed to observe that by strengthening the heart by drugs of the purely cardiac type, such as digitalis and strophanthus, irregularity could be curbed and abolished. This was especially true as regards the irregularity of middle life. With regard to youthful irregularity, its causation was extremely variable. If it were due to some simple emotional or psychical disturbance the great point was to get rid of that disturbance. If it should be due to a weakness of the vagus system plus some irritation in any other viscus, what had to be done was to allay the irritability of the vagus nerve either by the bromides pure and simple, or by a combination of strychnine and hydrobromic acid, which was found to be extremely valuable, while the irritation elsewhere was allayed. If the proximate cause should lie solely in disturbance of such a neighbouring viscus as the stomach, a very simple line of medication to that disturbed organ, in addition to the hydrobromic acid, would bring the irregularity to an end. There were some other additional points in regard to irregularity, but they fitted in more thoroughly with palpitation, and would be discussed in the concluding lecture.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications, which must reach this office not later than May 31st, for sums to be granted must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (a) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (b) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (c) and references to any transactions, journals or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant (two holders are eligible for and seek re-election), of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Research Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

The present scholar is eligible and seeks re-election.

GUY ELLISTON, *General Secretary.*