

the association of chronic irritation with its origin, and based upon a study of the variability of tumour cells, the Fifth Report deals mainly with the nature of the resistance which may be obtained against the growth of inoculated cancer. The evidence adduced tends to prove that the resistant condition can only be induced by treatment with living normal or cancerous tissue of the same species as that furnishing the tumour tested against, and that the resistance is always an active immunity. The facts which have been held to establish the existence of another kind of immunity in cancer—a starvation immunity, Ehrlich's atreptic immunity—have been shown not to require this assumption but to be naturally explained by the mode of operation of the active immunity referred to. Natural healing occurs very much less frequently in spontaneous tumours than in transplanted. Only one per cent. of spontaneous malignant new growths recede naturally. In the natural healing of transplanted tumours two factors appear to operate: the first is the power of the transplanted cancer cells to induce active resistance in fresh animals; the second is the susceptibility of the tumour cells to this resistant condition. Great variations in both respects are met with in the different strains of transplanted tumours, so that some grow progressively, as do the majority of spontaneous tumours, while others, being susceptible to the resistance they themselves induce, regress spontaneously in practically every case.

The details of the process of natural healing seem to be very closely alike in spontaneous and transplanted tumours, but while in transplanted tumours it is pretty certain that the damage to the cancer cells is due to the resistant condition, the causes of the cell damage which leads to natural cure in spontaneous growths are still quite obscure. Attempts to achieve this action by means of drugs are being widely made, but as yet with little success.

Appreciative reference was made to the loss the Fund had sustained through the deaths of Sir Julius Wernher, Lord Lister, Mr. Archibald Coats, and Sir Henry Butlin. Sir William Watson Cheyne was elected Honorary Treasurer in succession to Sir Henry Morris, who was elected a Vice-President on the suggestion of the Duke of Bedford. Professor Woodhead was re-elected a member of the Executive Committee and Dr. William Bulloch was elected to the Executive Committee.

MR. JAMES DUNN.

MR. JAMES DUNN, who died suddenly at York on the 17th inst., was a well-known naval architect, whose professional career had been long and honourable in the service of the Admiralty until he attained (fifteen years ago) the age-limit of sixty years, which permitted him to retire on pension. Since 1897 Mr. Dunn has been connected with the great firm of Vickers and Company, serving as director and chief naval constructor, and he was actively

engaged on these responsible duties until a few months ago, when he retired from active service in these offices, although his interest in the ship-building department continued. During this latter period of his professional career Mr. Dunn was most successful; the ships for foreign fleets designed and built under his supervision have added greatly to his reputation, and to the success of the company. It is interesting, therefore, to summarise the principal facts of his training and employment; more especially as Mr. Dunn never had the opportunity of studying at any school of naval architecture wherein the science of ship-building was systematically taught, because no such school existed at that time in Great Britain.

His training began by apprenticeship in Chatham Dockyard as a shipwright, at the age of fourteen years, and included attendance at the dockyard school, where the apprentices were instructed in mathematics and the elements of physical science. On the completion of his apprenticeship he became a draughtsman, and in that capacity was transferred to the constructive department at the Admiralty about 1860, when the ironclad reconstruction of the Navy was begun. This employment lasted about seven years, and was followed by a period of service as resident overseer of ships building for the Navy; after which Mr. Dunn returned to the Admiralty and resumed work in the constructive department, rising in rank gradually, until (in 1894) he became principal assistant to the Director of Naval Construction (Sir William White), and for three years did excellent work in that capacity. Certain special duties were from time to time entrusted to Mr. Dunn, and were well performed. In 1875 he undertook the survey of mercantile steamships and framed a list of vessels the subdivision and other features of which made them suitable for naval service in case of war. In 1884 he had much to do with the construction of the flotilla of boats built for the advance up the Nile of the Gordon relief expedition. He was the Admiralty representative on many important committees, including that which led to legislation for fixing the load-lines of merchant ships. His tact and temper were admirable, and his wide and varied experience made him a valued colleague wherever he was employed. His contributions to technical literature were not numerous, but were always practical in character and full of suggestive statement. His connection with the Institution of Naval Architects was formed very soon after it was established, and he was elected a Vice-President many years ago. His loss will be greatly felt in that Institution and by the members of his profession. W. H. W.

ANDREW LANG.

SCIENCE and letters are the poorer by the death of Andrew Lang. For in him we lose in criticism, anthropology, history, and psychic research, not to mention many other subjects digested by his versatile mind, a brilliant amateur. We should rather say a knight errant, for "amateur" still has a tinge of reproach, and Lang

touched nothing that he did not master. He possessed critical genius, the native acumen that penetrated to the heart of a subject, be it crystal-gazing, exogamy, or the Casket Letters.

His delicate taste as a poet and critic attracted me long before I came face to face with him in the ruder matters of primitive sociology. But in both, as also in the history of cricket and of golf, he always hit the mark. His touch for crucial points was infallible. In one line he gives us the essence of Artemis the huntress—

"And through the dim wood Dian threads her way"; in one sentence he exposed the central problem of exogamy, the bisection of the tribe.

Unnoticed before, this last proposition served him as the basis of his most fruitful work as an anthropologist. His exposition of his cousin's "Primal Law" will always remain a classic.

His "Myth, Ritual and Religion" was the first book to oppose academic sociology with the facts of modern savage life. With its simple but irresistible logic, he was able to check for ever the extravagances of Max Müller's school. Ceaseless criticism, invaluable in its results, was carried on in this department of science. As a polemical writer he was urbane, though apt to be diffuse. As a historian, in spite of his hatred of modernism, he was modern in his logical fairness and his grip of essentials.

Few things are more charming than some of his poems and short stories. The latter are often, as witness "In the Wrong Paradise," both humorous and scholarly. His love of Greece and of the past was perhaps a defect of his quality. But Lang's mind was great, Homeric. It made him both critic and artist, and as either he is a loss.

A. E. CRAWLEY.

THE 250th ANNIVERSARY OF THE ROYAL SOCIETY.

AS the celebrations in connection with the anniversary of the Royal Society were in progress at the time of our going to press last week, we were unable on that occasion to do more than print the names of the foreign delegates and those of the British Dominions beyond the seas, and to give extracts from some of the speeches delivered at the reception and the City banquet. The programme arranged was carried through without alteration, and passed off satisfactorily. The garden party at Syon House was largely attended, and about 1000 persons were present at the conversazione, which was held in the rooms of the society on Wednesday night, when several interesting historical instruments were exhibited, among which mention may be made of the chronometer by Arnold used by Captain James Cook on his second and third voyages, an electrical machine constructed by Dr. Joseph Priestley, the original model of Sir Humphry Davy's miners' safety lamp, a pair of compasses which belonged to Sir Christopher Wren, and Newton's original account of his reflecting telescope.

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At the garden party given by the King and Queen at Windsor on Thursday, the President, other officers of the Society, members of the Council, and the delegates were introduced to their Majesties.

We are glad to know that the delegates are returning home full of appreciation of the hospitalities which had been extended to them and their wives and daughters. The latter were the especial care of a ladies' committee: although the members of this committee are not named in the official programme, we are informed that Lady Bradford, Lady Crookes, Lady Lockyer, Lady Parsons, and Lady Ramsay were among the most active among them.

The proceedings were appropriately brought to a conclusion on Friday by the conferment of the honorary degree of Doctor of Science on eleven of the delegates from abroad by the Universities of Oxford and Cambridge, the recipients being—at Oxford—Prof. J. O. Backlund, director of the Imperial Observatory, Pulkowa; Dr. W. C. Brögger, professor of mineralogy and geology in the University of Christiania and rector of the university; Dr. W. B. Scott, Blair professor of geology and palæontology in Princeton University; Dr. W. Waldeyer, professor of anatomy and director of the Anatomical Institute in the University of Berlin; Dr. P. Zeeman, professor of physics in the University of Amsterdam; and—at Cambridge—Prof. E. B. Frost, director of the Yerkes Observatory; the Marchese Emanuele Paternò di Sessa, professor of chemistry in the University of Rome; Prof. Pavlov, St. Petersburg University; Prof. Picard, University of Paris; Geheimer Regierungsrat Rubens, University of Berlin; and Dr. Warming, formerly professor of botany at Copenhagen.

Dr. G. Lippmann, president of the Academy of Sciences, Paris, would also have received the degree at Oxford but for his enforced return to Paris in consequence of the death of Prof. Poincaré.

After the degree ceremony, the company assembled at All Souls' College, where a large party were entertained at lunch by the Warden and Fellows. In the afternoon a garden party was given in the grounds of Wadham College. Wadham College being the scene, during the Commonwealth, of some of the meetings from which the Royal Society afterwards took origin, an exhibition of portraits, books, and other objects of interest illustrating the early history of the society and its connection with Oxford had been arranged in the hall, and was inspected by many of the visitors, each of whom was also presented with a short statement, drawn up by Dr. F. A. Dixey, F.R.S., containing notices of the distinguished members of Wadham College (Wilkins, Wren, Seth Ward, Rooke, Sprat, Sydenham, Mayow, &c.) who were instrumental in the foundation of the society and in the general scientific movement of the time.

The following is the text of the speeches delivered at Cambridge by the Public Orator, Sir