Abstract of Proceedings

10TH MARCH, 1941

Annual Meeting.

The Annual Meeting was held in the Society's Room, Tasmanian Museum. The President, His Excellency the Governor, presided.

The following were elected Office-bearers and members of the Council for 1941:—Mr. Henry Allport was elected Vice-President in the place of Mr. W. H. Clemes, who retired under Rule 12; Mr. W. H. Clemes and Mr. Leonard Cerutty were elected in the places of Mr. N. P. Booth and Mr. Henry Allport, who retired under Rule 21; Treasurer, Mr. S. Angel.

Mr. H. J. Exley was elected Hon. Auditor in the place of Mr. Walter Taylor, who retired after many years of valuable service to the Society.

Mrs. J. D. Morris was elected a member of the Society.

Mr. M. W. F. Tweedie, of the Raffles Museum, Singapore, gave an illustrated lecture on the Natural History of Malaya.

7TH APRIL, 1941

A meeting was held in the Society's Room on this date. The President, His Excellency the Governor, presided.

The Archbishop of Hobart, the Most Rev. Justin Simonds, gave a lecture entitled 'The Psychology of Laughter'.

12TH MAY, 1941

A special meeting was held in the Society's Room on this date. Mr. E. E. Unwin presided in the absence of the President.

The business of the special meeting was to consider the proposal of the Council to amend Rule 67 as follows:—After the words 'Special Meeting' to add 'Notice of any proposed alteration shall be posted in the Library for not less than six days before the meeting'. It was pointed out by the Secretary that in revising the Rules in 1937 an important provision regarding the alteration of Rules had been overlooked. Old Rule 56 required that any proposed alteration to the Rules should be posted in the Library for not less than six days before the special meeting, and it was the wish of the Council that this omission should be made good. It was proposed by Mr. Meston and seconded by Dr. V. V. Hickman that the amendment to Rule 67 as stated above be accepted by the Society. This was carried without dissent.

The special meeting then concluded its business and a general monthly meeting was held.

The following were elected members of the Society:—Ordinary Members, Mr. C. C. McShane, Mr. H. O'May; Associate Members, Mr. W. B. Mather, Mr. A. Wardrop.

The Chairman exhibited a specimen of Lambs Tails *(Trichinium spathulatum)* of the Order *Amarantaceae.* This genus, which is purely Australian, is represented by 16 species in South Australia, but by only one species in Tasmania. It is found in the drier parts of the State.

The Secretary exhibited a collection of coloured copper engravings of Tasmanian scenes made by Joseph Lycett in the early part of the 19th century. Lycett, who was transported to Australia for forgery, arrived in New South Wales in 1810, and during his sojourn in Australia was responsible for a considerable amount of artistic work, including coloured drawings of New South Wales and Tasmania, which were made by him in 1819-21. In 1822 he obtained a free pardon and returned to England, and in 1824 he brought out his 'Views of Australia' in 13 parts. These consisted of 24 drawings of Tasmanian scenes and 24 of New South Wales scenes. The earlier plates were lithographed, but the later ones were engraved on copper. In 1825 the complete set was re-published in London as a single volume consisting of 48 plates, together with a map of Tasmania dated 1825 and a map of New South Wales dated 1825. The earlier plates, which had been lithographed, were re-engraved on copper, so that the complete set of the drawings in the single volume are copper engravings. It was stated that the 24 Tasmanian pictures would be exhibited in the Tasmanian Museum. They were purchased from the funds of the Friends of the Tasmanian Museum and Art Gallery.

Mr. J. W. Nicholls, F.R.C.O., A.R.C.M., then delivered a lecture on 'Some Aspects of Music', of which the following is an abstract:—

> Mr. Nicholls in tracing the trends of music gave pianoforte illustrations of his lecture. Music until about the year 1200 was, he said, little more than rhythm, and was purely melodic. Counterpoint, or a collection of tunes, then developed. The mediaeval centre of learning, the Church, began to develop the art of noting music, and later, with the growth of opera, the modern conception of harmony began, and its rise was helped by the increasing success of instrument makers. Contrasting the music of Bach and Handel, Mr. Nicholls said that Bach's connexion with the Church, and thus the counterpoint type of composition, determined his style. Handel was associated with opera, and wrote in a more modern manner according to the operatic characteristics of the day.
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> The great characteristic of the classic composers was the creation of beauty, shapeliness, and form, while the composers of the romantic age, such as Chopin, Schumann, and Wagner, wrote to express their own emotions or feelings, engendered by art and literature. The modern trend was towards the discovery of new paths in music, new outlooks, and modern composers aimed through experiment, at being different at all costs.

8TH JUNE, 1941

A meeting was held in the Society's Room on this date. The President, His Excellency the Governor, presided.

The following were elected members of the Society:—Mr. C. E. Kalmberg, Mr. M. S. R. Sharland.

Dr. J. W. Evans delivered an illustrated lecture entitled 'Recent Progress in Entomology in Tasmania', of which the following is an abstract:—

> The first part of the lecture was devoted to an account of investigations in the field of applied entomology, research concerned with two pests receiving special attention. These were the Light Brown Apple Moth *(Tortrix postvittana)* and Underground Grass Grubs (*Oncopera* spp.). Other insects discussed were Pasture Dung Beetles, the Lucerne Flea, the Cabbage Butterfly, and the Canary Fly and its parasite. The parasite of the Canary Fly is an egg-parasite, which was introduced into Tasmania from New Zealand in 1936. Reference was also made to the control of oak insect pests by parasites, the recent introduction of the Gorse-Seed Weevil, and an investigation that had been undertaken concerned with the food of trout.
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> In the second part of the lecture the value of systematic entomology was stressed and three interesting Tasmanian insects discussed. These were the primitive sucking-bug

Hemiodoecus fidelis, which is believed to be the only living insect which has retained flaps on the first segment of the thorax that are homologous with wings; the cicada *Tettigarcta tomentosa*, with which both sexes have non-functional sound-producing organs, and the recently discovered Panorpid *Apteropanorpa tasmanica*. The last-mentioned insect is not only the first completely wingless representative of the family to be described, but the first Panorpid to be recorded from Australia. In concluding the lecturer stated that entomological research, as well as being of benefit to the community, was extremely fascinating.

14TH JULY, 1941

A meeting was held in the Society's Room on this date, The President, His Excellency the Governor, presided.

Mr. Ian R. Boss-Walker was elected a member.

Dr. C. R. Brothers gave an illustrated lecture entitled 'Eugenics: The Medical Aspect', of which the following is an abstract:—

He pointed out that it is difficult to prove that mental diseases are on the increase, although recognition and commitability are undoubtedly on the increase. He stated that male psychotics marry less frequently than females, and those who are mentally sick do not tend to reproduce themselves.

He gave lukewarm support to the aims of eugenics, but was of opinion that although it is doubtful if the race can be improved by eugenic methods, it would be foolish not to take all reasonable precautions in view of our ignorance of many aspects of human inheritance. He pointed out the difficulty of carrying out selective breeding in the human race, though he agreed with the principal aim of eugenics, which is to improve the human race by increasing the rate of reproduction in the superior strains and decreasing it in the inferior. He then discussed at length the methods sometimes recommended for the elimination of the unfit, namely segregation of mental defectives, contraception, prohibition of the marriage of mental defectives, sterilization of the unfit. An important section of Dr. Brothers' paper was that which dealt with the genetical significance of certain human mental diseases, and he submitted valuable information of the inheritance of mental diseases which he had gathered in the course of his work at New Norfolk and other places. He pointed out, as eugenicists would be the first to concede, that our present knowledge of human genetics has not the precision which warrants the laying down of hard and fast rules for the breeding of the human species. He also criticized the methods which have been used in the investigation of the inheritance of human diseases, and in conclusion he advocated the establishment of a permanent committee to direct future researches into this question.

His lecture was illustrated by interesting pedigree charts of human mental diseases.

During the discussion on Dr. Brother's paper Dr. Pearson pointed out that biologists welcomed the information on the inheritance of human diseases which is steadily being compiled by a relatively few medical practitioners. Much of the information regarding the family history of disease obtained from patients should, however, be treated with considerable caution. His personal experience of pedigrees of human diseases, which are mostly compiled from the hearsay evidence of untrained observers, made it difficult to reconcile these pedigrees with the known facts of genetics. He recommended the establishment of a central Commonwealth body which would keep records of the medical history of every citizen of the Commonwealth. Such records would ultimately have considerable value in throwing light upon the inheritance of human diseases.

The lecture on 'The Biological Aspect' by Dr. Pearson was not given owing to insufficient time.

11TH AUGUST, 1941

A meeting was held in the Society's Room on this date. The President, His Excellency the Governor, presided.

Mr. James Glennie was elected a member.

Mr. M. S. R. Sharland delivered an illustrated lecture on 'The Life of the Lyre Bird' of which the following is an abstract:—

Mr. Sharland said that, although lyrebirds had been introduced into Tasmania with the stated object of preserving them from the fox, which did not occur in this State, he did not think there was any danger of the bird ever becoming extinct in the regions to which it was indigenous, namely, the coastal parts of Victoria and New South Wales and the southern part of Queensland. This was because a popular sentiment had grown up about the bird, and was responsible for its greater protection. Publicity had brought the bird into public prominence, and it is now recognised by Australians as unique, and efforts were being made to conserve it. Nevertheless, Tasmania was glad to receive birds, and he thought they would thrive in National Park, where they had been liberated.

The lyrebird generally placed its nest on the ground, and normally laid only one egg, the incubation period of which was about six weeks. The young bird then remained in the nest for another six weeks. This meant, for nearly three months, the egg and young were exposed to attacks by ground animals, and a pair of birds was fortunate if they reared their young one successfully. This factor operated to the detriment of the bird's survival and increase.

The lyrebird preferred dense forest and nested during the winter months. It was especially notable for its mimicry and its ornamental tail.

8TH SEPTEMBER, 1941

A meeting was held in the Society's Room. Mr. E. E. Unwin presided in the absence of the President.

Dr. L. A. Triebel delivered an illustrated lecture entitled 'Pasteur—A Play in Five Acts, by Sacha Guitry', of which the following is an abstract:—

At the beginning of this century the traditions of the French bourgeois drama coming from Emile Augier and the younger Dumas blended with the newer Ibsen-inspired realism of the Théâtre Libre, favouring social problem-plays like those of Brieux. The 'slice of life' obsession had reactions. Edmond Rostand revived the romantic, rhetorical drama with his eccentric but generous Cyrano de Bergerac, and the patriotic Chantecler. Maurice Maeterlinck and Paul Claudel started on a poetic, mystical and symbolist programme of lofty aim; whilst a legion of young playwrights, among them Courteline and Sacha Guitry, wrote French comedy with a new-old gusto and mastery. As playwright, theatrical manager and actor, Sacha Guitry, son of the famous actor Lucien, produced many entertaining comedies followed by a series of pageant-plays that were dramatized biographies (Deburau, Pasteur, La Fontaine, Mozart, and Béranger) most of them enlivened by the voice of his wife, Yvonne Printemps.

'Pasteur' was performed for the first time in the Théâtre du Vaudeville on the 23rd of January, 1919, and printed by Fasquelle of Paris. It was dedicated to Lucien Guitry, and the preface states that the idea of dramatizing the life of the scientist came to Sacha Guitry three years after reading the biography by M. René Vallery-Radot of his father-in-law, Louis Pasteur. In spite of difficulties this intention was fulfilled when Lucien Guitry invited Sacha to write a play especially for him. Vallery-Radot was re-read with great enthusiasm, 'For', said the younger Guitry, 'it seemed to me that I had the right to undertake a piece of work to which I felt irresistibly drawn. I have several times taken the liberty of using whole sentences as spoken by Louis Pasteur at meetings of the Academy of Medicine and elsewhere'.

Here appear both the initial impulse and the aim of Guitry: the inspiration of a great biography and the intention to honour a national scientist. The verbal indebtedness of the playwright goes beyond the italicised quotations, although in some instances he condenses, as in the Joseph Meister case (Pasteur, pp. 80-82, corresponding to Vallery-Radot, pp. 600-605). Act 2 brings the members in debate, and is based on the proceedings of the Academy. The impersonal form of the biography is here expanded and broken up into dramatic dialogue: some rôles are invented.

'Pasteur' is a series of dramatic portraits showing the scientist at five different moments of his life between the ages of 48 and 70. This breaks with the French dramatic tradition: Boileau had condemned characters ageing during the action. Moreover, there was the Aristotelian demand that the dramatic hero must not be flawless. Guitry succeeded dramaturgically by concentrating on the clash of wills between Pasteur and his opponents brought about by anger and irony in debate.

The multiplicity of dramatic characters dominated by one master figure is a conception found in Marlowe and others; but 'Pasteur', like Drinkwater's slightly earlier 'Abraham Lincoln' (1918), is essentially pageant, a series of tableaux-scenes. Australian literature has the similar 'Spinoza' (1932) by Professor Alexander Gunn. In these plays the historic events are mere agencies: 'the bearing of man facing it, is all'. Yet Guitry's task was more difficult than Drinkwater's: bacteriologists do not as yet loom as large as statesmen and generals. The pros and cons of spontaneous generation, of fermentations, microscopic control, and the infectivity of contagious diseases may be comparatively poor grist for the dramatic mill. There was a Lincoln legend; was there a Pasteur legend?

Guitry's selection of incidents from Pasteur's life was conditioned by their relation to national life: bacteriologist and patriot merged in him. The play begins effectively in 1870 with Pasteur's resolve to regain for France a leadership in scientific humanism and to turn on her the eyes of mankind for help and healing. Before the Medical Congress of all Nations at Copenhagen in 1884 he said, 'In every great scientist will be found a great patriot. The thought of adding to the greatness of his country sustains him in his long efforts, and throws him into those difficult but glorious scientific enterprises which bring about real and durable conquests'. (Vallery-Radot, p. 570.) The play ends with the presentation in the Sorbonne by the President of France of a commemorative medal on Pasteur's 70th birthday, the occasion of worldwide tributes. The final words are his 'I believe absolutely in the triumph of science and peace over ignorance and war'.

Guitry's interpretation is just to Pasteur, man and patriot, as was Lucien Guitry's acting of the rôle. Drama like this is the expression of the spirit of free inquiry, the University spirit, struggling long but victoriously against embattled forces alongside of which neither science nor literature can live. The Guitrys re-incarnated Pasteur, the soul of France, and without her the world would be alone.

The Drinkwater triumph in 'Abraham Lincoln' was the final impulse urging father and son similarly to dramatize France's greatest scientist:—

'This is the wonder always, everywhere—
Not that vast mutability which is event,
The pits and pinacles of change,
But man's desire and valiance that range
All circumstance, and come to port unspent'.

13TH OCTOBER, 1941

A meeting was held in the Society's Room. The President, His Excellency the Governor, presided.

Mr. W. H. Hudspeth read a paper by Miss A. L. Wayn, Government Archivist, entitled 'Sir George Arthur, Lieut.-Governor of Van Diemen's Land, 1824-1836', and maps and drawings connected with Governor Arthur were exhibited. The following is an abstract of the paper:—

George Arthur was born in 1784, the youngest son of John Arthur of 'Norley House', Plymouth. He entered the Army in 1804 as ensign in 91st Argylshire Highlanders, was gazetted lieutenant in 1805, captain in 1808, and major in 1812. He served in Egypt, Italy, and Flanders during those years, and was wounded severely on two occasions. For distinguished gallantry at an attack on Flushing, he was thanked in General Orders and appointed Deputy Assistant Adjutant-General on the field. On his return to England he received the freedom of the City of London and was presented with a sword. Plymouth accorded him similar honours.

In 1812 George Arthur was gazetted to 7th West India Regiment stationed in Jamaica, and, on arrival there, was appointed Assistant Q.M.G. to the forces in that Colony. In 1814 he married Eliza Orde Usher-Smith, second daughter of Lt.-General Sir John Frederick Sigismond Smith, K.C.B. Seven children were born of their marriage; three of the sons joined the Army; a daughter became the wife of Sir Bartle Frere.

In 1814 George Arthur was appointed Superintendent and Commandant of British Honduras, with the local rank of Colonel, holding civil and military command, a position which he held for eight years. He received the full rank of Lt.-Colonel in 1815, and was placed on half pay in 1819. During his term of office in Honduras, a revolt of the slave

population broke out in consequence of their brutal treatment by plantation owners. This had to be suppressed for the sake of law and order, but the cruelties practised on them by their owners made Arthur an ardent abolitionist. His protests through the Colonial Office gave a strong filip to the cause among those men lead by Wilberforce, who were pleading for the abolition of slavery, though among others he earned contempt as a humanitarian. Arthur had occasion to reprimand the colonel commanding the garrison at Honduras for undue use of the lash as a punishment. Bradley disputed his authority, and was sent to England under arrest. He appealed to the War Office, and was upheld on technical grounds. On Arthur's return home at the close of his term at Honduras, Bradley brought a case of unlawful arrest against him and won his suit, the defendant being fined £100.

At the close of the case Col. Arthur was appointed Lt.-Governor of Van Diemen's Land. That Colony was then suffering under many disabilities, caused by its rapid expansion, the emigration of large numbers of free settlers, its dependence on New South Wales, and its need of a Supreme Court. Social and commercial problems had become acute. The British Government's policy of limiting the number of female prisoners transported was unfortunate from a moral standpoint. Male prisoners had ceased to dread the sentence of transportation; comfortable housing, regular meals, and not inordinately long working hours were an improvement on the life in London's slums, from which a large number were drawn. Their working hours, 7 a.m. to 3 p.m. in summer and 8 a.m. to 4 p.m. in the winter, were not more than the Lt.-Governor's, who was frequently in his office at 7 a.m., and, when not engaged on duties outside it, attended there for the better part of the day, receiving and and answering requests from citizens and settlers.

Though a strict administrator, Arthur ruled his own life and that of his household equally rigidly. It was his reputation as a stern moralist, primarily, which secured his appointment. His humanity brought him more than one reprimand, through the Colonial Office, for his petitions in favour of convicts who had shown marked good conduct, or had acted in the interests of employers when opportunity offered, thus earning in the Governor's opinion some remission on their sentence. In the case of men who had been awarded a ticket of leave and were entitled to claim a wage, he encouraged them to ask for a free passage to the Colony for their families, by which means he hoped to ameliorate the lot of the prisoners and improve the moral life of the island, at least among that class. Governor Arthur decided that life at the penal settlement of Macquarie Harbour was too severe. He opened one at Maria Island in 1825, a place of lighter punishments, and limited the sentence to Macquarie Harbour to three years. However, the Home Government complained of the additional expenditure incurred. This caused his decision to close both and take over the sawmilling station near Stewart's Harbour as an ultra-penal settlement in 1833. Employment at Macquarie Harbour had been chiefly timber-milling and ship-building. These were continued at the new settlement (to be known as Port Arthur), with the addition of coal mining, which developed further under succeeding Governors. The change to more genial surroundings was shown in the marked improvement in the conduct of the prisoners. Numbers were brought back after short intervals to the settled districts for lighter service.

Under his commission of Lt.-Governor, Arthur was directed to protect the native population. His natural kindness of heart made him anxious to further their interest in any case, but the position was difficult. Constant complaints were sent in by settlers of the theft of their sheep and cattle and the death of their stockmen from frequent native raids. Revenge taken by the owners led to more hostilities, until the Governor was forced, in 1828, to proclaim martial law. On its failure, the 'Black Line' was carried out a year later in the hope that many natives would be captured and segregation of their race could be carried out systematically. The Line, which was formed by a chain of temporary small camps across the Colony, manned by Military and settlers, proved a dire failure and a heavy expense to the Home Government. Eventually the offer of a builder named George A. Robinson was accepted to attempt the capture of small parties. He had previously won the friendship of those whom curiosity and the encouragement of the Governor and residents had brought into Hohart Town from time to time, and was hopeful of success. Accompanied by two or three natives, he was able to persuade others to come in with him in the next few years. In 1832 segregation was begun at Flinders Island and Robinson was appointed Superintendent of the Settlement, with a catechist, a doctor, and a small party of Military. Though it proved a failure in later years, it is recorded that the arrangements laid down by Col. Arthur showed excellent judgment and sympathy with their needs.

Bushranging was rife in the Colony before and after his administration began. His measures improved matters for short periods, but a large military force was necessitated to keep down their increase in the Colony for many years.

Van Diemen's Land received a separate constitution and independence from New South Wales in December of 1825. Governor Arthur laid down the civil departments and published

a clear statement of the work to be carried out by each. He enlarged the personnel of the Executive and Legislative Councils, inaugurated the Bench of Magistrates, appointed a Colonial Secretary (formerly known as governor's secretary), a Treasurer, and Auditor, and instituted Trial by Jury. A Supreme Court had been established in 1824, the year of his appointment. Prior to 1827 an official known as 'Naval Officer' collected the entire revenues. After the appointment of a Treasurer, his duty was confined to harbour and post collections. In 1829 His Majesty's Customs Department established a branch in the Colony.

The need of churches and schools in Van Diemen's Land was serious in the 'twenties'. The Home Government consented to the erection of six of the former and the establishment of district schools in settled districts, under masters, some of whom were catechists also, and four or five chaplains were sent out to serve the churches built and under erection.

The Survey Department was insufficiently staffed to cope with the amount of field work entailed by the increasing number of free grants to incoming settlers during those years. Boundaries were not clearly pegged out, and in many instances grantees built and cultivated lands inside their neighbours' acreage. Restitution and readjustment entailed expense to the Government. The Governor was blamed by the settlers, though the trouble began before his arrival; while the Home Government resented the expenditure.

Colonel Arthur received his recall after 12 years of administration. He carried with him from Van Diemen's Land numerous Addresses expressing appreciation of his reforms and of the Colony's marvellous advance in prosperity during his term of office.

On arrival in England Colonel Arthur received the honour of knighthood, and was appointed Governor of Upper Canada. Trouble occurred in 1838 between the two provinces, and rebellion broke out. The British Government decided to merge Upper and Lower into one province. Sir George disagreed with that policy, and asked to be allowed to return to England. His resignation was accepted. The Canadian Press eulogized his statesmanship and manly qualities.

After his arrival in England the Queen forwarded him her gracious approbation of his services, and created him a Baronet. In 1842, a year after his return, he was appointed Governor of Bombay.

During his service in India, the Press of that country invariably praised his administrative qualities. Its testimony was endorsed by Sir Henry Hardinge, the Governor-General, when on the threat of an outbreak of war he advised the British Government, in the event of his having to take to the field, to appoint Sir George Arthur to his own office. The Government agreed to his suggestion, but the proposed honour came at a time when the administration of his province was almost beyond Arthur's physical strength. The long years of strain had taken their toll, his health grew worse in 1846, and he asked to be allowed to resign. The change back to his native climate brought improvement.

In the following year he was made a member of the Privy Council, and received the Honorary Degree of D.C.L. of Oxford. In 1853 Sir George was gazetted Colonel of the 50th Regiment, and in 1854 was promoted Lieut.-General. During that year he was attacked by a severe illness. His death occurred on 19th September at his home in Gloucester Square, Hyde Park, London, in his 71st year.

Though Sir George received the approbation of his Sovereign and was eulogized by the current press of the other countries in which he held office, modern writers have continued to allow the malignity expressed by the ex-convict editors of Van Diemen's Land to mar the name and memory of a man who has since been entitled 'One of the British Government's greatest Pro-consuls'.

The following papers were laid on the table and taken as read:—

(1) A Tasmanian Stone Implement made from bottle glass. By N. B. Tindale.

(2) Some Tasmanian Palaeozoic Corals. By Dorothy Hill.

(3) The Grapsid and Ocypodid Crabs of Tasmania. By M. W. F. Tweedie.

(4) New Leaf-Hoppers from Tasmania and Queensland. By J. W. Evans.

(5) A Mecopterous Larva from Tasmania, and Notes on the Morphology of the Insect Head. By J. W. Evans.

(6) The Nitrogen Bases in Tasmanite Shale Oil. By R. F. Cane.

10TH NOVEMBER, 1941

A meeting was held in the Society's Room on this date. Mr. Henry Allport presided in the absence of the President.

Mr. H. G. Vaughan was elected a member.

The following papers were laid on the table and taken as read:—

(1) A New Ichthyobdellid Leech and Its Egg-Capsules. By V. V. Hickman.
(2) Observations on Some Tasmanian Fishes: Part V. By E. O. G. Scott.
(3) The Phylogeny of the Homoptera. By J. W. Evans.

Mr. L. R. S. Benjamin delivered an illustrated lecture entitled 'Some Aspects of the Development of the Eucalyptus Pulping Industry and the Manufacture of Newsprint', of which the following is an abstract:—

The lecturer pointed out that conifers have been the source of supply of wood pulp for the paper industry for nearly three generations. The feasibility of using eucalypts for the manufacture of newsprint was considered very doubtful twenty-five years ago, and it is since that time that a process has been evolved by which the Tasmanian hardwoods can be utilized successfully in the manufacture of paper pulp.

Mr. Benjamin first explained at some length the structure of natural wood, and pointed out that the fibres constitute the 'units' of pulp. Conifers are more easily adapted for the making of pulp than eucalypts, as the fibres of the former are very much longer than those of the latter, and it was for this reason that H. E. Surface in 1916 stated that eucalypts were entirely unsuitable for making pulp. The weight of opinion at that time was strongly against the feasibility of using short-fibred wood pulp from eucalypts for any purpose other than as a filler to produce bulk and opacity in certain types of paper. The first aim of the paper manufacturer is to reduce the wood to its constituent fibres. The structural elements of wood are essentially cellulose, which is insoluble and not readily digestible. The separation of the cellulose fibres can be done by chemical as well as mechanical means. The essential principle of paper-making is the suspension of these macerated fibres in water and then straining them on a sieve. If the sieve takes the form of an endless belt a continual sheet of paper is produced.

The lecturer then described the various processes by which wood is converted into pulp, including the mechanical or grinding process and the chemical process, and he pointed out that at Boyer the grinding process is used. The pulp then undergoes a treatment known as beating. This is a mechanical process which develops the colloidal properties of the cellulose fibres. Different types of papers can be produced by a longer or shorter beating. In the case of newsprint, beating does not play an important part, as the principal ingredient is ground wood pulp, which no amount of beating will improve.

Mr. Benjamin then outlined the progress and sequence of experiments which have been made in the last twenty-five years in order to find some method of utilizing eucalypts in the paper-making industry. In their early experiments it was found that the percentage of cellulose was quite as high as in the soft woods and that pulp of high strength could be made from eucalypts by the proper combination of cooking factors. When the process had been established and success was assured, the Derwent Valley was recommended as the seat of the newsprint industry because here alone sufficient quantities of *Eucalyptus regnans* exist to supply the needs of an industry which must operate at least 400 tons of paper daily. Eucalyptus newsprint, therefore, may be regarded as a symbol of what can be achieved by the application of scientific methods to industrial problems.

Northern Branch

Annual Report, 1941

Meetings of the 1941 Session, other than the Annual Meeting and Public Lecture and the September Meeting, were held in the Lecture Room at the Queen Victoria Museum and Art Gallery.

26TH MAY, 1941

Annual Report and Public Lecture

The Annual Meeting for 1941 was held in the class-room, Public Library, at 7.30 p.m.

Mr. F. Smithies presided. The following were elected officers for 1941:—

President: Mr. F. Smithies.

Council: Mr. F. Smithies (Chairman), Mr. F. Heyward, Hon. Tasman Shields, Mr. W. R. Rolph, Mr. G. McKinlay, Mr. J. R. Forward, Mr. D. V. Allen, Mr. J. E. Heritage, Dr. R. A. Scott.

Hon. Secretary: Mr. E. O. G. Scott.

Hon. Auditor: Mr. J. R. Forward.

The Annual Report and the Statement of Accounts, which showed a credit balance of £35 17s. 3d., were read and adopted.

The Annual Meeting was followed, at 8 p.m., by a public lecture, 'Frenchman's Cap' by the Branch President, Mr. F. Smithies. The lecture was given in the Public Library Hall; there was an attendance of upwards of two hundred and fifty.

Mr. Smithies traced the history of the Frenchman's Cap (origin of name unknown; possibly bestowed by one of the French explorers in passing along the coast in 1870), with reference to Surveyor W. S. Sharland, 1832 (Sharland, extracts from whose diary were read, confused the Derwent, and thought that Lake St. Clair, which he saw from Mount Charles, and named Gordon Lake, was the source of the Gordon River); James Sprent, about 1850 (reached the summit, and erected a trigonometrical cairn); Tulley, Glover, and Spon, 10th January, 1857; T. B. Moore, 1888 (first ascent from western side); F. E. Philp, 1910 (made track to mountain, but did not climb it); track cut from Crotty in 1913 used by several parties from Queenstown under the guidance of the late Charles Whitham (this track remained open for only three years and was disused after 1916); F. Smithies and C. Bradshaw, 1932; A. I. Davern, 1933.

The second section of Mr. Smithies' lecture took the form of the projection of a number of lantern slides and of a moving picture in full natural colour showing various stages of a recent ascent of the mountain by himself, Mr. R. Hall, and Mr. P. H. Bond.

23RD JUNE, 1941

The President, Mr. F. Smithies, presided.

Mr. R. Boswell gave an illustrated lecture on 'Modern Museum Display Methods'.

Mr. Boswell's address fell into three sections—first, a general account of the speaker's recent visit to U.S.A., under the auspices of the Carnegie Corporation of New York, to attend a course of instruction in taxidermy and museum preparation, conducted by Mr. Frank Tose, Chief of Exhibits, California Academy of Sciences, San Francisco; secondly, a survey of some modern techniques (with special reference to latex preparations); thirdly, an account of the various stages in the mounting of a mammal.

In dealing with some modern developments in museum preparation, the speaker supplied some very interesting information on methods of moulding and casting in latex, a very adaptable, and now widely used, medium: Latex preparations of reptiles and amphibians

were handed around for inspection. Mr. Boswell then traced in detail the various steps in the mounting of a gnu, the successive stages involved being illustrated by photographs projected by an epidiascope.

The lecture was followed by a discussion, to which nearly all the members present contributed.

28TH JULY, 1941

The President, Mr. F. Smithies, presided.

Mr. J. B. Boag gave a lecture on 'Textile Dyeing'.

Mr. Boag, Research Chemist, Paton's and Baldwin's Mills, introduced his subject by a brief historical survey of dyeing from the early times, and laid down a fundamental distinction between household dyeing and dyeing by processes on a commercial scale. He then proceeded to make a systematic survey of six main groups of dyes, of the methods of using them, and of their reactions on vegetable and animal fibres. The principles of mordanting were discussed; and interesting references were made to practical problems encountered in commercial dyeing.

Mr. Boag then proceeded to trace in detail the whole process of dyeing a fabric, such as a suiting. Fairly full consideration was given to various aspects of colour-matching, fastness of dyes to light and water, and production of non-shrink fabrics, the successful approaches of modern research to these problems being demonstrated by the display of an extensive series of samples.

The lecture was followed by a discussion, in which virtually all members present participated.

25TH AUGUST, 1941

The President, Mr. F. Smithies, presided.

Mr. M. S. R. Sharland gave a lecture on 'The Life of the Lyre Bird'.

29TH SEPTEMBER, 1941

The President, Mr. F. Smithies, presided.

The September meeting was held in the Main Hall, Public Library.

The Hon. the Minister for Lands and Works, Hon. T. H. Davies, presided.

Mr. F. W. Hicks, Superintendent of Agriculture introduced Mr. C. L. Goldstone, B.Sc.Ag., who gave a lecture on 'The Menace of Soil Erosion'.

Mr. Goldstone, who has been engaged for some time in making a survey of the problem of soil erosion in Tasmania, gave a general address on soil erosion, followed by an account of the results of some of his own investigations. In dealing with local examples, the lecturer first discussed the plight of many orchards in the West Tamar district and in southern Tasmania: pictures taken in these localities showed trees with exposed roots, the result of wind or water action. It was pointed out that the honeycombing of land by rabbits frequently gives rise to a state of conditions conducive to extensive erosion by winds. A striking example of water erosion cited is one in which, in one property investigated by Mr. Goldstone, a great gully, by formation of which 15,000 cubic yards of soil had been lost, has been produced by water deepening a plough-line made to drain a paddock. The destruction of land in coastal areas by encroaching sand was also described, typical examples being illustrated by means of lantern slides.

At the conclusion of Mr. Goldstone's lecture, a sound-film, 'The Menace of Erosion' was shown: the film, prepared by the Rural Bank of New South Wales, was screened by courtesy of the Bank.

27TH NOVEMBER, 1941

The President, Mr. F. Smithies, presided.

Mr. E. O. G. Scott gave a lecture on 'A Naturalist in Tasmania'.

After some introductory observations on the scope and complexity of present-day biological research, Mr. Scott pointed out the exceptionally favourable opportunities that exist in Tasmania for work both by the specialist and the field naturalist. General consideration was then given to the geographical and biological characteristics of Tasmania in relation to those of the mainland of Australia, New Zealand, and South America. The striking similarity of the fauna of the regions delimited by Bass Strait was discussed, and it was pointed out that, in many respects, the fauna of the northern half of the State is more closely assimilated to that of Victoria than to that of the southern part of the Island.

The geological history of the State was traced in broad outline to present a general picture of the involved course of events from pre-Cambrian times onward; and some fossils characteristic of the various periods were considered. Some general remarks were made on the interest to the naturalist of our local mammals; and, in conclusion, a brief account was given of some of Tasmania's so-called living fossils.

The lecture was followed by a discussion, in which most of the members participated.

COUNCIL MEETINGS

Council Meetings were held on the 5th May, 9th June, 3rd July, 11th August, 8th September, 14th October, and 1st December.

H. H. Pimblett, Government Printer, Tasmania.