

NOVEMBER, 1890.

The last monthly evening meeting of the present Session was held on Monday, November 17th, 1890. The PRESIDENT, Sir R. G. C. Hamilton, was in the chair.

NEW MEMBERS.

Messrs. A. J. Ogilvy and A. R. Browne, M.A.M.I.E., F.G.S., were elected Fellows of the Society.

AUSTRALASIAN ASSOCIATION.

The Secretary (Mr. A. Morton) read a letter from the Hon. P. O. Fysh, Premier, intimating a vote of £500 from the Government towards defraying the expenses attendant upon the 1892 session of the Australasian Association which is to be held at Hobart. He also intimated that congratulations had been received from New South Wales, Victoria, and New Zealand, at the proposed arrangements for holding the meeting here in 1892.

STRIKES AND WAGES.

Mr. A. J. OGILVY read a paper, in which he asked the question, Can the toiling masses really improve their condition by these incessant and unhappy strikes, or are they only beating their hands against the iron bars of inexorable economic law? The paper was a reply to the paper read by Mr. R. M. Johnston at the September meeting on the influence of strikes on real wages. Dealing in the first place with the question as it affected primary industries, that is those which are concerned in extracting or producing the raw materials of wealth from the land as in agriculture or mining, he contended that in all such industries every increase of wages would come out of rent. He regarded rent as the surplus which remained after paying working expenses and tenants' ordinary profit. Every rise in the expenses or fall in the profits would reduce the rent proportionately, and, therefore, he concluded that in every department of industry which is concerned in supplying the raw material of wealth from the land, every enforced rise of wages will be clear gain to the labourer, but the loss would fall on the landlord, and stay there. In the secondary industries of manufactures and commerce which were engaged in working of and distributing the material produced by the primary industries, increased wages signified increased price of goods. Those goods were of two kinds—those which the masses consumed, and those which they did not. After pointing out that a vast proportion of industry was concerned in providing luxuries and enjoyments for the rich, he concluded that in all those commodities which the underpaid do not consume, the loss due to increased wages would fall upon the overpaid, and stay there, again leaving the whole net gain to the labourer. On those goods which the masses consumed the strikers would suffer loss, but the loss would not equal the gain. It was said that if the upper classes lost so much there must be so much less employment for labour, and so the loss will come round to the labourer after all. He maintained, however, that there would be no less employment. For, he asked, why will the upper classes have got so much less? Simply because the lower class have got so much more. It is not a loss, but a mere transference of employing power. What the masses want more money for is to spend it, and they can only spend it in purchasing goods and hiring services just as the upper class did. They will in short, to the extent of the transference, be employed by each other instead of by their old employers. There was, of

course, a limit to the rise of wages, but this limit was a long way off. The labourer could not earn more than his labour produced, but what the labourer actually got was a very small portion of what his labour produced. In conclusion he pointed out that a more equitable distribution of the produce of labour was a boon so great in itself as to be well worth some cost, and that we need not be dissatisfied because less luxuries are produced for the few very rich, if more comforts are provided for the many poor; not even though the loss in value on the luxuries exceeds the gain in value on the comforts.

Mr. R. M. JOHNSTON read a paper criticising Mr. Ogilvy's views. He said it afforded him great pleasure to find himself in agreement on so many points with one like Mr. Ogilvy, whose well-known generous sympathies for the amelioration of the condition of the masses of the people must command the respect of all right thinking persons. He took exception, however, to several of Mr. Ogilvy's arguments, notably to that regarding rent. He favoured Ricardo's theory, now almost universally accepted, that "the rent of land is determined by the excess of its produce over that which the same application can secure from the least productive land in use." He also laid it down as an accepted doctrine of political economy that rent formed no part of the price of agricultural produce. He dwelt at length upon this point, and illustrated by a table that any increase in wages must fall upon consumers and not upon rent of landlord or the profit of the capitalist. He combated the idea that the rich spent more in luxuries, pointing to the large sums spent by the working classes in liquor and tobacco. He held that Mr. Ogilvy's objections to his papers were based upon assumptions which could not be sustained when subjected to close scrutiny, and he could only re-affirm that it was by increase of savings properly applied in the creation of instruments, which will still more greatly multiply the power of man that any improvement in the condition of the masses can be successful. Without this the mere raising of wages could only benefit a few industries at the expense of the many.

Mr. OGILVY said that the Society had now the two aspects of the question before them, and it was for the members to judge. Mr. Johnston had based his arguments principally on the generally accepted opinion of Ricardo, but it should not be forgotten that the British Parliament had repudiated it, in regard to the Highlands of Scotland and Ireland, by the establishment of Land Courts, which introduced an artificial element into what was held by some economists to be a natural law. In regard to what Mr. Johnston said about the rent forming no part of the price of agricultural produce, there were some farmers present, and he asked them if they had to pay twice as much as they now did for their labour, would they pay as much rent?

Mr. W. E. SHOBRIDGE also spoke on the subject at some length, pointing out that the prices of labour were to a great extent fixed by combinations which had been the secret of the success of all strikes. He hoped the time would speedily come when arrangements would be made whereby the labourer could get his fair share of the products of labour without recourse to strikes.

ACTINOMYCOSIS AND TUBERCULOSIS.

Dr. BARNARD read a paper on this subject, dealing with its transmissibility of bovine diseases to human beings by the consumption of the meat of diseased animals. He showed that such diseases had been transmitted. A central Hygienic Institute was recommended by the last Intercolonial Stock Conference, to which all cases of disease amongst animals should be referred from all the colonies. Without some such institution it was not easy to see how

they could be informed to what extent these diseases prevail in our midst. He considered that a similar institution should be founded in connection with the Health Department of this colony, as modern science now was not content with mere superficial examination, but proceeded with more strict and reliable methods to detect the micro-organisms which are undoubtedly the active agents in the production of disease. The paper was illustrated by microscopical specimens of these diseases prepared by Mr. Archibald Park, M.R.C.V.S.

COAL SPECIMENS.

Mr. CURZON ALLPORT showed a number of specimens of coal from the mines at New South Wales, and New Zealand.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered the following address:—

Fellows of the Royal Society.—During the session of 1890, which this evening comes to a close, the number of our Fellows has been increased by sixteen, and of our Corresponding Fellows by two. The additions to our library have been very satisfactory, and include the three handsome volumes containing the record of the Challenger Expedition, for the gift of which we are indebted to our honorary secretary, Dr. Agnew. I am personally gratified to learn that the *Encyclopædia Britannica*, which I presented to the Royal Society in the beginning of the year, is being largely referred to by members, who find it of much assistance to them in some of their studies and investigations. The annual proceedings of kindred societies throughout the world, which form perhaps the most important part of our Library, are constantly increasing, and here I would point out that, having regard to the time which often elapses before such volumes are printed and distributed, we may regard with some satisfaction the fact that at our opening meeting this session we had on the table the printed proceedings of our Society for 1889. It is true that this is the first time that this has been done, but I think we may feel pretty sure that our energetic secretary, Mr. Morton, having accomplished this once is not likely to observe less promptness in the publication of our annual proceedings in future. Our monthly meetings have been well attended, and 22 papers have been read before us. In Zoology we have had five papers. The first by Mr. R. M. Johnston, entitled "Further Observations upon the Fishes and Fishing Industries of Tasmania, together with a revised list of indigenous species." Eight years have elapsed since Mr. Johnston contributed a similar paper to this Society, and during that time, from additions made mainly by Mr. Saville-Kent, Mr. Morton, and Mr. Johnston himself, the 188 species then known have increased to 214. The next, also by Mr. Johnston, on "Tasmanian Mollusca," in which he points out how much there is to be done in connection with this subject to secure a satisfactory classification of species. Then we have had a paper by Mr. A. T. Urquhart, of New Zealand, on some Tasmanian spiders sent to him by Mr. Morton for examination, in which he pronounces the collection to contain not only several new species but also two new genera. Mr. Morton contributed an interesting paper on a recent dredging trip in the River Derwent. He was fortunate in being accompanied on this trip by Mr. A. Durrand, a Fellow of the Royal Microscopical Society, who has made a collection of foraminifera from many parts of the Southern Seas, and who, it will be remembered, at one of our meetings exhibited some interesting microscopical preparations of these, and of other minute marine organisms. Owing to the primitive description of dredge used on this trip, the results from a scientific point of view were not so great as they might have been, but they were quite enough to justify Mr.

Morton in determining to carry out in the summer months of this year a more complete system of dredging, similar to that adopted by him some time ago on the coast of Queensland. The last paper bearing on Zoology was read by Mr. Andrew on ostrich farming. In this paper he gave, from personal observation and experience, some account of the bird and its habits when in a domesticated state. In Geology we have had from Mr. Johnston and Mr. Morton a description of a second ganoid fish from the Lower Sandstones near Tinder Box Bay, similar to the one discovered last year, which the discoverers named after me, *Acrolepis Hamiltoni*. Mr. W. A. Montgomery read "Notes of Some Observations of the Geology of the West Coast," a subject which is of particular interest at the present time, and Mr. Barnard, our respected vice-president, brought under the notice of the Society some notes by Mr. S. H. Wintle respecting a fossil tree found beneath a hundred feet of basalt. In botany we have had some notes by Mr. Johnston on the discovery of a fern, hitherto unknown in Tasmania, although found on the continent of Australia, and Mr. Morton has compiled "A Complete List of Ferns found in Tasmania, with Full Descriptions of the Genera and Species." In this list, which will be invaluable to students and collectors, he gives so far as is practicable the authorities and the localities in Tasmania where each fern is found, and the locality in which the species is found in the other colonies. In this section also Mr. A. J. Taylor read two papers, one on coco-de-mer, and the other on the native hop as a cure for hydatids. In meteorology we have had a paper from Mr. E. C. Nowell on the influence of the moon on the rainfall, and on this paper Captain Shortt made some interesting remarks in which he stated that his observations showed that the influence of the planets also over the weather is considerable, and he promised a paper on this subject on some future day. Dr. Barnard has submitted to us a very important paper this evening on "Actinomycosis, Human and Bovine, and its relations to Tuberculosis, illustrated by mounted specimens prepared by Mr. A. Park, M.R.C.V.S." From Mr. J. B. Walker we have had two further contributions respecting the early discovery and settlement of Tasmania, the first entitled—"Notes on the localities mentioned in the journal of Tasman's discovery of Tasmania," and the second on the settlement of Northern Tasmania, in which he describes the discovery and occupation of Port Dalrymple and the River Tamar. Mr. Walker also contributed a paper on the Antarctic Expedition of the Erebus and Terror. This latter paper, although only a compilation from Sir James Ross's book, is of much interest at a time when further Antarctic exploration is being carefully considered and discussed. In connection with this subject also, Mr. Morton read a paper on "What science and commerce may gain from an Antarctic expedition." The interesting correspondence which has taken place with the Royal Society of Victoria on this subject will, of course, be printed with our proceedings. Baron Oscar Dickson has undertaken to furnish an expedition which Baron Norden-skiold is to take command of, provided the Australian colonies contributed £5,000—a moiety of the estimated cost of it. Our Society has voted £50 out of its funds towards this object, and further contributions will, it is hoped, be forthcoming. Although it is, I believe, the general desire of our members, and, I may say, of Tasmania generally, to do our part in helping forward this scheme, the munificence of which on the part of Baron Dickson we so heartily appreciate, yet there is, I gather, a strong feeling in the community generally that it will only be by a fully equipped expedition, involving a very much greater outlay than £10,000, under the British flag, promoted jointly by Australia and the Mother Country, an expedition which will have to pass at least one winter in the Antarctic circle,

that the many interesting questions now locked up in that imperfectly unexplored region can be fully settled. In Social Science we have had two papers from Mr. Johnston, the one, "Root matters in social and economic problems" (second series), and the other, "Observations on the influence of strikes upon real wages." This second paper of Mr. Johnston's was followed by the paper entitled "Can strikes really improve the condition of the masses?" read this evening by Mr. A. J. Ogilvy, whom we are glad to welcome as a new working member of this Society, and by Mr. Johnston's rejoinder. Such subjects do not admit of the mathematical demonstration of a problem in Euclid, and difference of view will prevail. But we may congratulate ourselves on the presence amongst us of two such able exponents of the different views held on this subject, and it is only by full and free and fair discussion in a science like this, if indeed science it can be properly called, that truth can be elucidated. At our first meeting this session, Mr. Barnard gave us some account of the meeting in Melbourne in January last of the Australasian Association for the Advancement of Science. He drew our attention to the fact that it had been provisionally settled at that meeting that the gathering of the Association for 1892 should be held in Hobart. This provisional arrangement will have to be confirmed at the meeting of the Association, which is to be held in Christchurch New Zealand, in January next, but there is little doubt that this confirmation will then take place, and that we shall have the privilege of welcoming the Association in Hobart in January, 1892. You have heard read this evening the letter of the Premier respecting the contribution of the Government towards the expenses which will be incurred on this occasion. I think we may regard this letter as quite satisfactory, and I confidently look forward to the meeting of the Association in Hobart in 1892 being a thoroughly successful one. I will do my utmost to secure the presence at this gathering of some distinguished man of science from the old country, but of course I cannot be sure that my endeavours in this direction will be successful. You may remember that the cablegrams some time ago announced that Professor Huxley was on his way to New Zealand by way of the Cape, and I took the opportunity of referring to this at one of our meetings, and suggested that we should prepare for his reception in Hobart, which he was to touch on his way. Unfortunately this rumour proved to be incorrect, but I have always understood that the Professor had it in contemplation to visit Australia some time or other, and it would be a great triumph if we could secure his attendance during the meeting of the Australasian Association for the Advancement of Science, to be held in Hobart in 1892. Although the work of the session is very creditable we might well have received more contributions from our members. With the single exception of Dr. Barnard, whose important paper has been read this evening, we have received no contribution this session from any of our medical members, who from their scientific knowledge might in so many directions have produced interesting work for us; and I would again press upon their attention that we should much value a more active co-operation on their part in the work of the Society. In conclusion, I would desire to record our thanks to those members who have submitted papers to us, and particularly to Mr. Johnston, whose versatility is as great as ever; to Mr. Morton for the energy and ability displayed by him in the discharge of his duties as our secretary; and to the Press for their full reports of our proceedings.

On the motion of Bishop MONTGOMERY thanks were voted to His Excellency for his address and for presiding at the monthly meetings.

The proceedings then terminated.