

Other kind lived on the juices, thus killing parts of the plants. Some fed exclusively on new growth, thereby preventing a further development of the plant. Some also attacked the developing seeds and frustrated the production of fruit, and other insects were found to be capable of acting as transmitting agents to some fungal and bacterial diseases which were also introduced.

The main Australian object was carried out at the Prickly Pear Board's laboratory at Sherwood, near Brisbane, and subsidiary laboratories in the north-west of New South Wales and Central Queensland. The result of the work to date was that there had been established in Australia a group of prickly pear insects capable of attacking different parts of the plant so that their combined activities were almost certain to have a marked effect on the spread of the prickly pear. It must not be forgotten that the pest had had at least 60 years, if not a century's start on the scientists of Australia. Therefore some time would be necessary before the introduced insects could be expected to make their presence felt, although the fact

should not be overlooked that in the space of a few years one introduced insect had controlled one of the several kinds of prickly pear growing in Australia.

Lantern slides were shown depicting the various kinds of prickly pear in Australia, views of the infested parts of New South Wales and Queensland, and a complete series of pictures illustrating the different stages in the life history of the insects being used, the results of their work, and the effects of the various introduced diseases.

## PROBLEMS IN SOLAR RESEARCH.

ADDRESS BY PROFESSOR W. G. DUFFIELD.

Professor W. G. Duffield, D.Sc., spoke on "Some problems in solar research" before the Astronomical Society, at the Institute Buildings, North terrace, on Wednesday evening. Professor Chapman presided over an appreciative audience. Solar research in general, remarked the speaker, owed much to the South Australian Astronomical Society in that they had effected the recognition of its importance to the Commonwealth Government, who had undertaken to establish a research observatory at Canberra. He would speak about the work of solar research, and the pressure of the sun's atmosphere and its rotations. The sun's barometric pressure was a point of first interest. It was only possible to find that pressure by spectrum analysis. It was found by experiment that atmospheric pressure resulted in a slight displacement of the lines of the spectrum. The method of measuring the pressure by calculating the displacement was explained by the professor in detail, with the aid of a number of diagrams and tables thrown upon the screen. From the first estimate the deduction was made, observed the speaker, that the higher the atomic weight of the element the greater the atmospheric pressure. Subsequent experiment, however, had led to a modification of that view. The peculiar arrangement in which the elements were found to be distributed in the atmosphere was touched upon by the lecturer, who said that another problem with which they were concerned was that of solar rotation. This was calculated in three ways. First by a study of the positions of sunspots, and also by what were known as faculae, and spectroscopic phenomena also contributed to that end. Experiments by Wolfe also showed a fluctuation in the number of sunspots, which indicated a significant increase in each cycle of 11 years; and another phenomenon observed was the tendency of sunspots to drift in that period towards the sun's equator.

The lecturer was cordially thanked by Professor Chapman. They were much indebted to Dr. Duffield, he said, for his lucid and interesting lecture. They had received firsthand information, inasmuch as they had been listening to an active worker in the department of solar physics, and Dr. Duffield had made important discoveries in the effect of pressure on spectral lines, and its relationship to the solar spectrum.

Professor Kerr Grant proposed a vote of thanks, and congratulated Dr. Duffield upon his success in having induced the Commonwealth Government to establish an observatory at Canberra for research in solar physics. It was fitting that Australia should take its part among the nations of the world in this work. The lecturer had not dealt with the connection between the study of the sun and the weather, but it was possible that in the solar radiation might lie the explanation of the variations of the weather, and such studies might offer possibilities for long-range weather forecasting.

The Government Astronomer (Mr. G. F. Dodwell, B.A.), in seconding the vote of thanks, said he also congratulated Dr. Duffield in having obtained from the Commonwealth Government the promise of a Federal Observatory. There were people uninstructed as to the value of astronomy who had asked, "What use is it?" It was, for instance, the foundation of ocean navigation, land and sea surveys, it gave the business man exact time, and had many other practical applications, besides satisfying that part of the human mind which distinguishes man from the lower animals. In addition, no one could foretell the extent of the practical money making and money saving applications of discoveries made by science, as was seen in the case of wireless telegraphy, which arose from scientific investigations. Dr. Duffield had outlined the field of solar physics, and much would come in the future from the study of the sun. They must not overlook the advantages of the high-level plateau of Central Australia for observatory work, as solar and stellar observations could be carried on by day and night without interruption all the year. He hoped that Australians would emulate the example of practical and patriotic Americans who had liberally endowed such observatories in their country. Reference was also made to the success just announced of Dr. Hurst, a former member of the society. He had been a lecturer in physics under Professor Grant, and also associated with the Adelaide Observatory, before leaving for Cambridge, where he had met with distinguished success.

In introducing Professor W. G. Duffield to the Astronomical Society, before whom he lectured on Wednesday evening, Professor R. W. Chapman remarked that Professor Duffield was on a visit from the Reading Observatory. He was a distinguished graduate of the University of Adelaide. Not only had he taken a special interest in the subject of astronomy, but he had been largely instrumental in inducing the Commonwealth Government to decide to take up the work of providing an observatory at Canberra for solar observation. He was an original investigator in solar research, and was especially devoted to the spectroscopic aspect of the study.

## THE LAW STUDENTS' SOCIETY.

The Law Students' Society met at the University on Tuesday evening. Professor Coleman Phillipson presided over a large gathering.

The question for debate was:—"The Saltmarsh Co., Ltd., having an option to purchase a large tract of land a few miles distant from a railway, orally agreed with Messrs. Abbott and Brown, owners of the strip of land between the said tract and the railway, that the company should be allowed to construct a private railway over this strip. The company then purchased the tract of land, built the railway, and began operations. Messrs. Abbott and Brown conveyed their land to John Burton, who took with notice of the operation of the railway thereon. Burton applied for an injunction against the operations of the railway." The plaintiff Burton was represented by Mr. G. Pavy, with him Mr. Gillespie. Mr. P. Ohlstrom, with Mr. S. H. Lewis, appeared for the company.

Counsel for Burton argued that, according to the Statute of Frauds, the contract should have been in writing to have been binding, and that the fact that the company had built the railway was not sufficient notice to Burton that the land was subject to an easement in favor of the company.

Counsel for the company claimed that equity being appealed to by Burton, the case must be decided on equitable grounds. Burton had ample notice, and he took the land subject to all easements he was notified of. This railway was certainly an easement.

After counsel had concluded their addresses, the question was discussed by the meeting in general. The speakers were Messrs. B. Griff, Kriewaldt, Tucker, G. Harry, M. Bednall, W. Reeves, J. R. McCabe, A. Korif, and C. C. Crump. Counsel then replied.

The adjudicator, in summing up, expressed his gratification to find such unanimity among the speakers, particularly as they were on the right side. He said an oral agreement alone would have been unenforceable when—as was clearly proved in this case—as easement arose, but equity would protect it. He referred to the case of *McManus versus Cook*, which removed this case from the operation of the Statute of Frauds. If the injunction sought by the plaintiff were granted, it would inflict a great loss on, and be an appreciable hardship to, the company, which would be contrary to all the principles of equity. Equity looked to the pure justice of the case in dispute, and in the present matter, Burton having had due notice, his appeal for an injunction must fail.

The professor congratulated all those who had taken part in the debate, and particularly Messrs. Bednall and Crump. He also complimented Messrs. Pavy and Gillespie upon the excellent fight they had put up for their client in spite of the great consensus of opinion against them.

## UNIVERSITY LECTURES.

From J. E. H.—The recent visit of Professor Mackail reminds one of a similar visit paid to these shores by Professor Henry Jones several years ago. Both are (or perhaps I should say were, for Sir Henry Jones has since joined the great majority) men of the same type, with the same high ideals and the same delightful personality. I was present at a lecture on "character," given by Sir Henry in the Prince of Wales Theatre, during his stay. It stands out as a precious memory. His forceful style and ease and simplicity of manner at once put him in perfect accord with his audience, and gave you a feeling of intimacy and friendliness towards him. I well remember how, when he had got well into his subject and every one was hanging on his words, he suddenly stopped and appealed to us with, "I hope I am not too technical for you, ladies and gentlemen. Not too technical for you, I hope," turning whimsically to the row of learned professors ranged in front of him. Of course he proceeded amid general amusement. Truly a wonderful man.

## MUSIC FOR THE PEOPLE.

Each Thursday—in the luncheon hour—a crowd of music lovers assembles in the Elder Conservatorium to enjoy an organ recital. Mr. Harold Wylde, F.R.C.O., is the instrumentalist. Yesterday a specially fine selection of numbers was presented, and were ably rendered by Mr. Wylde. The programme included the following:—Fantasia (Bubeck), Chanson d'Espoir (Meale), Tempo di Minuetto (Guilmant), Benediction Nuptiale and Rhapsodie or Breton folk songs (Saint Saens), Scherzoso (Rheinberger).

## THE LEAGUE OF NATIONS.

### "SOME OF ITS PRESSING PROBLEMS."

An interesting lecture was delivered by Mr. G. L. Wood, M.A., lecturer on social science to the Workers' Educational Association, under the auspices of the League of Nations Union, S.A. branch, on Thursday, in the Prince of Wales Theatre, University. The Rev. G. E. Hale was in the chair. The lecturer pointed out that when France entered the Ruhr, in effect, she turned her back on the League. Mr. Branting, of Sweden, had brought forward a proposal to submit the question of reparations to League arbitration, but it was M. Viviani, the French representative, who vehemently protested that the League, under the Versailles Treaty, could not intervene without receiving a request from the Powers concerned. It would seem that the council of the League had been bamboozled by the statesmen of Europe, just as President Wilson was at Versailles. The chief economist of America, Professor Fisher, wrote that the League offered a means of correcting the bad effect of the reparations requirements. Mr. Wood declared that what the situation needed was not payments from Germany to France, and from France to U.S.A., but a flow in the reverse direction, with loans from America to Europe. The League had already proved its power in the magnificent war in which it dealt with the Austrian debt. The lecturer explained the administrative problems of the League, and illustrated his remarks with slides showing Poland and her new territory; the Ruhr zone; Memel and Lithuania, Austria, and her separation from her seaport; Thrace and Asia Minor; the neutral zone around the Dardanelles, and Mosul, with its oilfields. He predicted that within six months America would be seeking entrance into the League in order that she might have more power in the oil districts of Asia Minor.

Mr. Wood, after having answered questions, was thanked by Mr. Carlisle McDermott and Miss Horton.

## ELDER SCHOLARSHIP.

### JOHN BISHOP FUND.

A fund has been started in the interests of John Bishop, the winner at the Conservatorium of Music of the Elder Scholarship at the Royal College, London. This scholarship was founded by the late Sir Thomas Elder many years ago for South Australian scholars, and provides for tuition and £1 a week maintenance for a period of three years. This sum, of course, is totally inadequate at the present time.

nor was it ever sufficient—the early scholars having had allowances made them by Sir Thomas personally. No provision was made at all for passage money to and from London, nor for incidental expenses, such as piano hire (in itself quite a considerable amount nowadays). As the present holder's family is not in a position to meet these requirements, a fund has been started, controlled by a committee, with Mr. Charles Cawthorne as hon. secretary and hon. treasurer. The subscriptions actually received and promised hitherto amount to £290 17/, but it is deemed necessary by those who are in a position to judge that £600 at least will be required to give this scholar the opportunity of effectively studying, unhampered by pecuniary difficulties. It is hoped by the committee that donations will be received to make up this amount. The following subscriptions have been received or promised:—Bach Society, £100; Mr. Tom Barr Smith, £25; Mrs. Tom Barr Smith, £25; Mr. F. W. Clements, £25; Mr. and Mrs. C. W. Hayward, £25; Mr. A. J. Fisher, £25; Dr. and Mrs. John Corbin, £21; Miss Reynell, £20; Miss F. E. Hill, £5 5/; Mrs. G. D. Delprat, £5; Mrs. Michael Hawker, £5; P. M., £4; Mr. T. H. Pearce, £2 2/; Father and Mother Christmas, £1; F. B., £1; Miss Connell, £1; Bridge, 10/; total, £290 17/. In response to the committee's request, subscriptions (which will be promptly acknowledged) will be received at The Register Office for this deserving fund.