continued bright at least in the NW. till 3:45 A.M., and probably later till the dawn blotted it out. Auroral pencils and sharp streamers being notably absent there was nothing to detract from the splendor of the great curtains.

On the following two nights there may have been auroras behind the clouds. On that of the 4th a moderate display with some pretty streamer action at about 3 A.M. was visible all night from Mt. Washington. The following two nights were cloudy. Then another display occurred. At 7:42 P.M. on the 7th a smooth auroral arch covered most of the sky up to the pole-star (45°) at Carter Notch, but by 7:57 there was but a low arch. The maximum with some streamers occurred apparently at about 10:30 P.M. The aurora was visible at other times throughout the night. On the evening of the 8th a faint arch broken by streamers in the NNW. was visible; and on the following evening there seemed to be a faint arch.

Charles F. Brooks

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THE COCCIDÆ OF CEYLON

Entomologists are indebted to Mr. E. E. Green for by far the most ambitiously conceived and most admirably executed contribution to the knowledge of the Coccidæ or scale insects that has ever been made—the "Coccidæ of Ceylon." This work, which is still incomplete, has been issued in parts and the final part would have appeared long ago but for the interference of the war. I am informed by Mr. Green that as matters now stand the long-hoped-for appearance of this final volume seems indefinitely postponed because of the enormously increased costs of printing. The only hope that he may be able to proceed with its publication at all lies in the possibility of obtaining adequate assurance that the entire issue can be sold.

It may at first appear that a work which deals with but a limited aspect of the fauna of a comparatively remote island such as Ceylon can have but little interest for Americans. Yet such is decidedly not the case with this work. Many of the species included are practically cosmopolitan and the ever present possibility of the spread of others through the agencies of commerce makes desirable any information that can be obtained concerning them. The Coccidæ of Ceylon is indispensable to any one who is at all seriously interested in the scale insects. Its completion is a matter in which all students of the Coccidæ should take a personal interest.

The price of the final part has been set at 3 pounds, which is the actual cost of publication, and of the entire series of five parts at 8 pounds. To those who are familiar with the work the price will not seem in the slightest degree excessive. Mr. Green says:

> If I could get definite promises of support from a considerable number of prospective purchasers, I should feel justified in going ahead at once.

It is sincerely to be hoped that these promises may be forthcoming. Correspondence should be addressed to Mr. E. E. Green, Way's End, Camberley, Surrey, England.

G. F. Ferris

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A METHOD OF PROTECTING MICROSCOPIC SECTIONS FROM MECHANICAL INJURY

Those who have to deal with classes using chiefly microscopic slides, especially of embryos, will appreciate the fact that most of the damage to sections comes not from breaking of the slide but as the result of pressure on the cover glass. Such damage would not be possible but for the fact that most of the balsam remains fluid, even after many years, and consequently offers no firm support to delicate structures. If only some firm transparent substance could be found in which the sections might be imbedded the defect resulting from the fluid nature of the balsam might be counteracted and the tissues kept in perfect condition for successive classes.

Celloidin sections fulfill most if not all of the mechanical requirements, but are unsuitable because of the great amount of time required for cutting and mounting serially. However, these considerations led to the development of the following process which combines all of the advantages of the paraffine

method with some of those of the celloidin technique.

From ordinary series of paraffine sections the parffine is removed in xylol, the slides being transferred with great care to 100 per cent. alcohol and then to 1 per cent. parlodion from which they are removed slowly one by one and placed in 80 per cent. alcohol, an old method for securing sections to the slide especially for preventing embryonic membranes from floating about. After staining by any method and dehydrating, the slides are removed singly from 100 per cent. alcohol, placed in a horizontal position, and the sections *quickly* and *evenly* flooded with 2 per cent. parlodion. About 10 to 14 drops, from an ordinary 2 c.c. pipette, placed in two rows and allowed to stand one to two minutes uncovered were found to form a film of very uniform thickness and of sufficient firmness to be hardened without wrinkling when slipped into 80 to 90 per cent. alcohol. The proper degree of drying is indicated by a minute rippling of the surface of the celloidin. The slide is again dehydrated, care being taken not to use alcohol strong enough to dissolve the celloidin; and then cleared in a mixture of 40 per cent. beechwood creosote in xylol, followed by plain xylol. Creosote alone clears quite as well but does not flow as readily as the mixture which, moreover, clears from 95 per cent. alcohol. Such slides may be thoroughly drained in the air for several minutes before covering in the ordinary way with balsam and a cover glass.

It should be noted that the parlodion must be applied *evenly* so that the balsam will dry without the formation of large air bubbles. The latter can be entirely avoided. Furthermore, thinner films suitable for use with oil immersion objectives can be obtained by using a solution of parlodion somewhat more dilute and less in quantity.

By this method sections of the most delicate structures are imbedded in and under a perfectly transparent, unstained layer of celloidin so tough and resistant that sufficient pressure may be applied to the cover-glass to crush it without the least injury to the tissue. Slides so treated can not be distinguished from ordinary slides.

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QUOTATIONS

THE BRITISH ASSOCIATION

THE Edinburgh meeting of the British Association for the Advancement of Science came to a successful end yesterday. It was the largest in numbers for many years; and although the deficit on the accounts of last year made it impossible to devote money from current funds to research, there is a better prospect for the immediate future. Thirteen sections sat concurrently during the greater part of the week. It can not be pretended that all the proceedings conformed with the normal definition of science. Humor in school children, episcopal opinions on citizenship, the relative merits of Latin and Esperanto, and the history of Old Edinburgh are worthy occupations of the human mind, but lie somewhat uneasily with sterner subjects. The general committee showed a marked reluctance even to consider the advantages of a stricter definition of the scope of the association, and the adherents of sections more loosely attached to experimental science very naturally opposed proposals which they feared might lead to their extinction. On the other hand, the policy of the Council in arranging intersectional discussions on topics of wide interest was warmly approved in theory. In practise it led to some of the largest audiences in the history of the association. It was possible to give in our columns only slight indications of the general purport of the discussions on the structure of molecules, the age of the earth, and instinctive behavior; but our special correspondent laid stress on the wide interest taken by the members of the association in these deeper problems.

Sir Edward Thorpe, the president, was unfortunately prevented by illness from all but a formal attendance on the last two days of the meeting. But his opening address, read for him by the principal of the university,