

ASTRONOMY AND METEOROLOGY IN AUSTRALIA.

A VERY important paper has been issued recently by the Government printer of Adelaide, South Australia.<sup>1</sup> It is a report of an Inter-State Astronomical and Meteorological Conference, convened in May last, in view of the possible transfer of the observatory departments to the Federal Government as provided for in the Commonwealth Constitution Act. The official directors of the observatory departments of the several States were invited, and there were present Sir Charles Todd, K.C.M.G., F.R.S. (Government astronomer for South Australia), who was called to the chair, Mr. H. A. Lenehan (acting Government astronomer for New South Wales), Mr. W. E. Cooke (Government astronomer for Western Australia), Mr. P. Baracchi (Government astronomer for Victoria), Mr. A. A. Spowers (chief surveyor for Queensland), and Mr. H. C. Kingsmill (Government meteorologist for Tasmania).

The report represents briefly, in the first place, the present arrangements for public astronomical and meteorological work in the several colonies and the provision for weather telegrams. It then proceeds to give its proposals for the future in twenty-two resolutions. Six of them refer to work in astronomy, magnetism, or seismology; the remaining sixteen indicate a scheme of organisation of the meteorological service of the Commonwealth. The scheme is framed on the idea of the establishment of a central federal institution for theoretical and scientific meteorology, "where the observations for the whole of Australia should be collected, discussed and published, and where all the higher problems of meteorological science may be investigated; but such institution should have nothing to do with the daily weather service and issue of forecasts." Duties connected with the latter services, according to the scheme, are to be entrusted to an official in each State; and to the regulation of those services and their relation to the telegraph service the greater number of the twenty-two recommendations are devoted.

Appendices give the separate views of Mr. Baracchi, Mr. Cooke, and Mr. Kingsmill upon some of the recommendations.

The really important matter is the proposal for a separate establishment for the discussion of meteorological observations for the whole Commonwealth. The idea will be warmly welcomed by all those who desire to see the multitudes of meteorological observations brought into the most effective relation with practical life. That such an institution should have "nothing to do with the daily weather service and issue of forecasts" should probably be understood in an administrative sense. The ultimate effect of a scientific establishment upon forecasting would be a good deal more than nothing.

The calling together of the Inter-State Conference for the business-like discussion of the organisation of astronomical and meteorological work will also be warmly applauded in this country. It is one more expression of the fact that work in astronomy and meteorology is of more than local interest and importance. While doubtless real progress in either must still depend upon individual energy and individual genius, exchange of material has become a recognised necessity, and exchange of ideas an indispensable assistance.

It is therefore a pleasant duty to chronicle the appearance of this most promising scheme, which will put the Australian Commonwealth in a position to continue the excellent work of Russell and take

its share in tracing out the mysteries of the meteorology of the Indian Ocean. When we remember the powerful appeal of Sir J. Eliot at Cambridge for the cooperation of the British dominions in working out meteorological problems of the widest application the solution of which is foreshadowed by the suggestions of relationship between meteorological phenomena in different parts of the world and of their connection with solar changes, we can only hope that this proposal for the federation of Australia for scientific prosecution of meteorological work is a step in the direction of a wider federation for a similar purpose.

On this planet, north and south and east and west are not so far apart that we in this country or our comrades in America or Africa can affect to regard the meteorological organisation of Australia as a question which does not concern us, and we shall watch the development of the scheme which is put forward, confident in its power of contributing in large measure to the pursuit of a common purpose in an organised manner.

W. N. S.

FERDINAND BARON VON RICHTHOFEN.

THE unlooked-for death of this distinguished man of science has sent a thrill of deep regret all over the world among those who take interest in the progress of geology and geography. Though he had passed the limit of three-score years and ten, he remained up to the last so active in mind and body, so full of an almost youthful interest in the advances of science, so keenly solicitous and enthusiastic over the welfare of the institutions with which he was connected, that all who knew him looked forward to still many years during which his inspiration and guidance would continue to be at the service of those departments of investigation which have long been so deeply indebted to him; but this augury proved vain. While sitting at his writing table, apparently in his ordinary health, a sudden seizure deprived him of speech. Yet, as he remained otherwise fully conscious, it was hoped that the symptoms might soon pass away. A little later, however, another seizure attacked him during a deep sleep, and after two days and a half he passed peacefully away on October 6, without illness or suffering of any kind.

Belonging to a noble family that possesses large estates in Silesia, Richthofen was born there on May 5, 1833. His early education was received at a seminary under the management of Roman Catholic ecclesiastics, from which he passed to the University of Breslau and then to that of Berlin, where he took his degree of Doctor in Philosophy in 1856. By this time a study of the writings of Leopold von Buch and Alexander von Humboldt had kindled in him a vivid appreciation of the attractions of geological and geographical research. Like the two great masters from whom he drew his inspiration, he appears to have begun his career as an author by publishing some of the results of his investigation of eruptive rocks. His earliest papers, which began in 1856, dealt with the intrusive melaphyres of Moravia and the trachytes of Hungary.

Repairing to Vienna, he made the acquaintance of the geologists of that capital, and notably of the eminent director of the Austrian Geological Survey, Ritter von Hauer, with whom he formed a lasting friendship. He was induced to become a volunteer in this survey and to assist in working out the complicated structure of parts of the eastern Alps. He spent two busy seasons among the Dolomite Mountains, which in after years he looked back upon as one of the happiest periods of his life. The results of these field-surveys were embodied by him in his

<sup>1</sup> Report of Inter-State Astronomical and Meteorological Conference, Adelaide, May, 1905 (By Authority, C. E. Bristow, Government Printer.)