

## SHORTER CONTRIBUTION

## THE FIRST AUSTRALIAN "GOVERNMENT METEOROLOGIST"

By F. Loewe

Department of Meteorology, University of Melbourne.

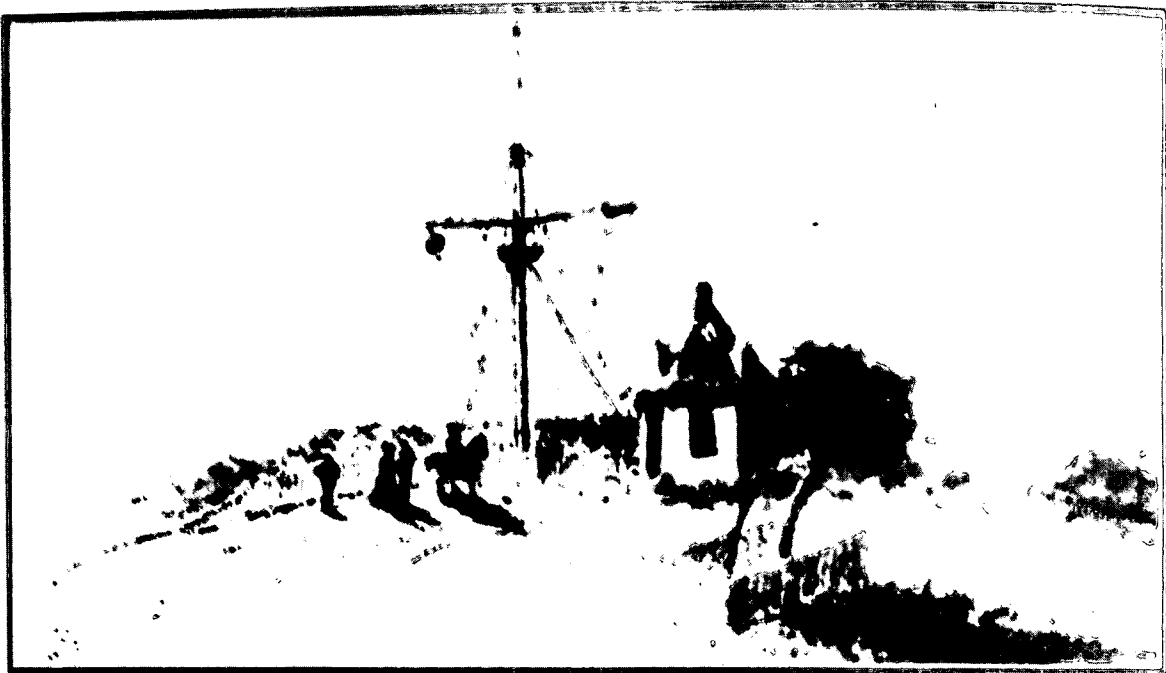
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Early in 1853 a young man of 26 years by the name of Georg Balthasar Neumayer, the mate of a German sailing ship, arrived at the recently discovered gold diggings near Bendigo. This was nothing unusual; the gold fields were full of sailors who had left their ships in Australian ports to take part in the gold rush. It was more remarkable that Neumayer, besides working as a cook, started to instruct the ex-sailors during the evenings in navigation. He was indeed no ordinary sailor. He had graduated at the Technical University at Munich in Bavaria and had acted as demonstrator in the Department of Physics at Munich University, specialising in the study of the magnetism of the earth. But, notwithstanding his origin far from the sea, he was deeply interested in the ocean and had studied the works of Matthew Fontaine Maury, the "father of maritime meteorology". He wanted to acquire a thorough practical knowledge of the sea. Frustrated in his efforts to enter a Naval Service, the young scholar, with the singleness of purpose which was one of the marks of his character, became an ordinary seaman. After a short time he was able to gain the mate's certificate.

On one of his voyages Neumayer came, in the middle of 1852, to Port Jackson where all sailors except himself deserted the ship to try their luck on the goldfields. He stayed for some time in Australia and commenced some observations of the magnetism of the earth at Sydney. Coming to Melbourne, the well educated, intelligent and eloquent young ship's mate entered the developing scientific circles and conceived the idea of a magnetical and meteorological observatory at this place. For some time he was also Second Mate on the famous American clipper "The Sovereign of the Seas" in which he returned to Europe in 1854.

At home, important scientific personalities approved of his plans, and his sovereign, the King of Bavaria, granted the 28 year old Neumayer the funds for the acquisition of the needed instruments and for the establishment of the observatory in Victoria. With these means, and recommendations from Whewell, Airy and Faraday, Neumayer sailed in November 1856 for Melbourne. Following Maury's and Neumayer's suggestions the ship took a very southerly course which caused it to "discover" Heard Island, which, however, unknown to Neumayer and the captain, had already been sighted several times, and arrived after only 81 days at Melbourne.

In Melbourne Neumayer was granted the use of a building on Flagstaff Hill, the present Flagstaff Gardens, with a free view in all directions. Very soon he started magnetical and meteorological observations, initially partly financed by a present of £500 from the flourishing German colony at Melbourne. These were not the first meteorological observations in Victoria. From 1840 to 1850 and since winter 1855 meteorological observations had already been taken on Flagstaff Hill (Baracchi 1919). With Neumayer's arrival the geophysical work in its wider sense was enormously expanded. Apart from hourly observations of all meteorological and magnetic elements, meteors, zodiacal light and atmospheric electricity were regularly observed. After some delay the provisional was replaced by a more suitable permanent building (Neumayer 1859, 1865). In 1859 the observatory was taken over by the Colony of Victoria. Neumayer, commonly known as "Professor" Neumayer, was nominated



Flagstaff Hill Observatory 1850's [Sketch by Gordon McCrae]

Director of the Melbourne Flagstaff Observatory and shortly afterwards the first Government Meteorologist and Director of the Magnetic Survey of the Colony. For some time W.G. Wills of the Burke and Wills expedition was one of his assistants.

Since 1859 Neumayer was also in charge of the meteorological stations outside Melbourne, of which about 10 were in operation. In September 1862 the magnetic observations were transferred to a new observatory near the Botanical Gardens.

Apart from his comprehensive work at the Observatory, Neumayer travelled extensively in all parts of Victoria and parts of South Australia, making a thorough magnetic survey and meteorological and hypsometrical observations. Altogether his travels covered 11,000 miles including ascents of Mt. Feathertop and Mt. Kosciusko. He also started a collection of weather and track logs of ships sailing to and from Australia. He was active in the Philosophical Institute of Victoria and its successor, the Royal Society of Victoria, became a Vice-President of the latter and a member of its Exploration Committee, and was President

of the German Association. In view of this widespread activity it is remarkable that Neumayer succeeded in publishing, during his stay in Melbourne, two comprehensive volumes containing his observations in 1857 - 1862 (Neumayer 1864, Flagstaff Observatory 1859-60).

Already, in Melbourne, Neumayer had advocated an expedition into the south polar regions of which he hoped to be a member. He continued these efforts for 40 years and had a considerable share when in the beginning of the 20th century four expeditions renewed the long-dormant Antarctic exploration. After seven years in Victoria and unbroken activity at the Flagstaff Observatory for five years, Neumayer returned to Germany. On his departure he was made an Honorary Life Member of the Royal Society of Victoria. In Germany he published in the English language, a comprehensive discussion of his meteorological and magnetic observations (Neumayer 1867). Written in the style of the pre-synoptic period it is probably today still the most detailed analysis of the meteorological conditions at any place in Australia and a most thorough piece of work (see also Neumayer 1860). When Neumayer left Australia all observations were transferred to the Melbourne Observatory in the Domain.

After his return to Germany Neumayer was appointed in 1872 to the newly created position of Hydrographer of the Admiralty. In 1876 he became Director of the recently founded "Deutsche Seewarte" at Hamburg, which was charged to further the knowledge of the natural conditions in oceanic regions and in this way to safeguard and further the traffic on the high seas. Neumayer remained as head of the Seewarte till the age of 77 years; he died in 1909 at the age of 82 years. He combined to a rare degree scientific knowledge of the oceanic realm with practical experience as a sailor. Under his direction and with the help of outstanding collaborators like W. Köppen, the Seewarte became one of the leading institutions for the furtherance of the science of the sea, from its depths to the atmosphere above, and contributed substantially to the rapidly expanding use of the highways of the oceans.

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