

THE SOUTH-AFRICAN MUSEUM

SINCE we last gave a notice of this institution we have learned, with much pleasure, that the Cape Government has made liberal provision for its more efficient administration and maintenance. There is none of the more important British Colonies which has of late made more rapid progress than the Cape in material prosperity, and it is most gratifying to find that the Molteno administration (the first ministry organised under the Parliamentary System of Government initiated in 1872) has not been oblivious of the claims of science during its four years' tenure of office. In the estimates for the financial year 1876-77, as passed by the Colonial Legislature, we find provision made for Botanical Gardens to the extent of 2,900*l.*; for Public Libraries, 2,600*l.*; for Museums, 1,300*l.*; while such items as "Geological Researches, 1,500*l.*;" "In aid of publishing Dr. Bleek's Bushman Researches, 200*l.*;" and "Meteorological Commission, 250*l.*," sufficiently prove that the duty of endowing research is practically recognised by the Cape authorities. The present able Governor, Sir Henry Barkley, F.R.S., is as well and widely known for his attachment to scientific pursuits as for his distinction in Colonial administration, and we think we cannot err in tracing to his judicious influence much of the enlightened action of his responsible advisers in their recommendations to the Parliament.

The South-African Museum is located in Cape Town, and is the public museum of the Colony. It was instituted in 1855 under the auspices of Sir George Grey, a governor distinguished for his energy and success in initiating measures for awakening and developing the intellectual life of the Colony. Many years before there had existed a South-African Museum in Cape Town, consisting of the combined collections formed by the Expedition for Exploring the Interior, under the superintendence of the celebrated zoologist, Sir Andrew Smith, and by M. Verreaux; but this museum was devoid of means for permanent maintenance, and after languishing for a while came to an untimely end for want of public support. Many of its finest specimens, however—and notably those of the magnificent larger mammals characteristic of the region which constituted its chief ornament—were fortunately secured for the British Museum, and still form an imposing feature of the national collection. The new, or present institution, was started by public subscription aided by an annual grant from the Government of 300*l.* Two trustees were appointed by the Governor, and a third elected annually by the subscribers; but in 1857 the collections already brought together were of sufficient importance to induce the passing of an "Act to Incorporate the South-African Museum," under which all the three trustees were to be appointed by the Governor, and to be vested with full powers for the entire management and control of the institution. Under this Act the Museum has continued to be and is still administered.

In happy contrast to the untoward fate of too many kindred institutions, the South-African Museum has from the first been most fortunate in the possession of trustees who were men of culture and of scientific attainments; and for fifteen years it enjoyed the further advantage of the services of Mr. E. L. Layard, C.M.G. (now H.M. Consul in New Caledonia), as its Curator.

The usual difficulties attended the acquisition of suitable premises for the Museum, but these were eventually obviated by the erection at the cost of the public of a building expressly designed for the purpose; and on April 5, 1860, the Museum was opened to the public in its new quarters.

As mentioned in our notice already referred to, the Cape Museum appears, notwithstanding the advantages stated, to have suffered from the chronic complaint of very insufficient funds. The system of support partly from the

Colonial Treasury, and partly from private subscriptions, seems to have failed, the subscribers lost by death or departure from the Colony not being as a rule replaced by others; and of late years the institution depended almost wholly on the government subsidy of 300*l.* With such limited means at their disposal, it was obviously out of the question for the Trustees to award an adequate remuneration to the Curator, and they had no alternative but to make shift with engaging the services of a gentleman willing to devote a part of his time to the Museum. This unsatisfactory state of things has now been remedied by the government on the recommendation of the Trustees, constituting the Curatorship a Civil Service appointment, with a suitable salary. We congratulate Mr. Trimen—who has been for four years endeavouring to satisfy simultaneously the rival claims on his attention of an ordinary public office, and of a museum of natural history—upon his appointment to the Curatorship on its improved basis; and we consider that great credit attaches to the Cape Government for effecting so desirable a reform. We must not omit to mention, moreover, that, under further legislative provision, a new gallery has just been erected in the Museum, and other much-needed repairs and improvements in course of execution are approaching completion.

ATLANTIC SOUNDINGS

THE recently-announced discovery by Commander Goringe, of the United States sloop *Gettysburg*, of a bank of soundings bearing N. 85° W., and distant 130 miles from Cape St. Vincent, during the last voyage of the vessel across the Atlantic, taken in combination with previous soundings obtained in the same region of the North Atlantic, suggests the probable existence of a submarine ridge or plateau connecting the island of Madeira with the coast of Portugal, and the possible subaerial connection in prehistoric times of that island with the south-western extremity of Europe. The soundings obtained in January, 1873, by H.M.S. *Chalenger*, and in July, 1874, by the German frigate *Gazelle*, furnish additional data, with the help of which the accompanying contour-chart has been constructed.

These soundings reveal the existence of a channel of an average depth of from 2,000 to 2,500 fathoms, extending in a north-easterly direction from its entrance between Madeira and the Canary Islands towards Cape St. Vincent. It is bounded on the west and north by the submarine ridge which unites Madeira with the Josephine bank and the recently-discovered Gettysburg bank, on the east by the coasts of Portugal and Morocco, and on the south by the submarine plateau which connects the Canary Islands with the African continent.

As shown in the chart, this channel is virtually an extension or branch of the still deeper channel which runs up between Madeira and the Azores. The island of Madeira, with the adjacent islands of the Desertas and Porto Santo, occupies the southern extremity of the dividing ridge, and marks the junction of the two channels. Confined by a comparatively steep bank on the west and a more gentle slope towards the African shore, this eastern branch seems to attain its greatest depth off Cape St. Vincent, after which it contracts into a narrower channel, less than 2,000 fathoms deep, and continuing northwards as far as the latitude of Cape Roca, it once more joins the vast abysses of the Atlantic. The Strait of Gibraltar is undoubtedly a recently-formed connecting-link between this basin and that of the Mediterranean.

Commander Goringe, when about 150 miles from the Strait of Gibraltar, found that the soundings decreased from 2,700 fathoms to 1,600 fathoms in the distance of a few miles. The subsequent soundings, five miles apart, gave 900, 500, 400, and 100 fathoms, and eventually a depth of 32 fathoms was obtained, in which the vessel anchored. The bottom was found to consist of live pink