

"It was noticed, however, after a considerable time, that specimens of the deposits preserved in bottles with abundance of spirit had (on the upper surface of the mud, as seen in the bottles) a very mobile jelly-like aspect, while similar specimens kept in sea water or fresh water had no such appearance. When the spirit preserved specimens above referred to were treated with the various staining solutions, the appearances so minutely described by Huxley and figured by Haeckel were at once seen. It was further observed that when a small quantity of pure sea water was treated with different quantities of spirit of wine, that precipitates of different characters were obtained; a mixture of one ounce of sea water with one of spirits of wine gives a precipitate which falls to the bottom of the glass and consists of minute crystals, but when three or four ounces of alcohol are mixed with one-quarter or one-half ounce of sea water there is a very bulky gelatinous precipitate which retains its jelly-like character for years. Mr. Buchanan examined these precipitates from pure sea water and found that they consisted wholly of sulphate of lime. When the soundings were being made for the first Atlantic telegraph cables, the naturalists, in their anxiety to get the specimens of the ooze in the best condition for examination, gave instructions that the samples should at once be placed in bottles, and the bottles then filled up with strong spirit. Since the ooze, when freshly collected, has always a quantity of sea water associated with it, the sulphate of lime in it was thrown down as a gelatinous precipitate on the addition of the large quantity of spirit, and it was this precipitate mixed up with the ooze that was described under the name *Bathybius*. Since the analysis of the ooze showed the presence of organic matter, and as the gelatinous precipitate of the sulphate of lime gives reactions with colouring solutions resembling those of protoplasm, the conclusion that the precipitate was protoplasmic in its nature was a very reasonable one."¹

CAPE VERDE ISLANDS.

On the 17th April the Challenger left Porto Praya, San Iago, and the following day anchored off Porto Grande, St. Vincent, remaining there till the 26th. While at Porto Grande the steam pinnace was engaged two days in dredging in depths of 7 to 15 fathoms.

CAPE VERDE ISLANDS TO ENGLAND.

On leaving Porto Grande the trade wind was found very light and well to the northward, as far as the 18th parallel, after which it shifted more to the eastward and

¹ Preliminary Report, by Mr. John Murray, *Proc. Roy. Soc. Lond.*, vol. xxiv. p. 530, 1876; Preliminary Report, by Mr. J. Y. Buchanan, *Ibid.*, p. 635, 1876.