erythrin of the Florideæ; and perhaps the further study of the conditions under which this takes place may throw much light on the development of the particular substances in the living plants. Though so much remains to be learned, yet even now the facts appear sufficient to prove that there is some most intimate connexion between the general organization of plants and their coloured constituents; and I very strongly commend to botanists the further study of the very important and interesting group of substances to which I have directed attention in my present communication, which must be looked upon merely as a general introduction to a wide and difficult subject.

Contributions to the Botany of H.M.S. 'Challenger.'

XXI. Algæ * collected by H. N. Moseley, Esq., M.A., at Simon's Bay, C. G. H., Seal Island, Marion Island, Kerguelen's Island, and Heard Island in 15 to 20 fathoms. By George Dickie, M.D., F.L.S.

[Read February 4, 1875.]

Rhodomelaceæ.

Polysiphonia incompta, *Harv.*?

The specimens are imperfect, and I therefore have some doubt as to the species.

Geogr. distr. Cape G. Hope.

Sphærococcoideæ.

Nitophyllum undulatum, *Ktz.*

The specimens are young or dwarf.

Geogr. distr. Cape G. Hope.

Cryptonemiaceæ.

Gigartina Burmani, *Aq.*

Geogr. distr. Cape G. Hope; and, according to Suhr, found also at Cape Horn.

* In the "Contributions," No. XVII., relating to Tristan d'Acunha, the following should be added by way of supplement:—

Prasiola calophylla, *Meneg.*

A green crust on moist rocks. I have compared it with Scotch and Irish specimens and can see no essential difference. The plant is also found in France and Germany.

CERAMIACEÆ.

CALLITHAMNION GRACILE, *H. f. & Harv.*?

The plant is very probably a form of this species, differing only in the proportions of the upper articulations, which are about twice as long as broad.

Geog. dist. Campbell Island.

SIPHONACEÆ.

CAULERPA FILIFORMIS, *Hering.*
Geogr. distr. Coasts of S. Africa.

XXII. Algæ collected by Mr. MOSELEY at Seal Island. By GEORGE DICKIE, M.D., F.L.S.

[Read February 4, 1875.]

"THIS is a low rounded granite rock in False Bay, about eight miles from Simon's Bay, Cape of Good Hope. A perpetual surf washing on the island renders landing difficult. It is inhabited by sea-birds, especially *Spheniscus demersus* (Jackass Penguin), and *Phalacrocorax capensis* (Cape Cormorant)."

The algæ form a thick covering to the rock in the surf.

FUCACEÆ.

SPLACHNIDIUM RUGOSUM, *Grev.*
Geogr. distr. S. Australia; Tasmania; New Zealand; Indian Ocean; Cape G. Hope.

LAURENCIACEÆ.

LAURENCIA VIRGATA, *Ag.*
Geog. distr. Cape G. Hope.

GELIDIACEÆ.

CHÆTANGIUM ORNATUM, *L.*
Geogr. distr. Cape G. Hope.

CRYPTONEMIACEÆ.

IRIDÆA CAPENSIS, *J. Ag.*
Geogr. distr. Cape G. Hope.