

CHAPTER V.

THE GULF-STREAM.

Departure from Bermudas.—Sounding and Dredging near the Islands.—*Madracis asperula*.—The Determination of Surface and Deep Currents.—Difficulty and Uncertainty of our Present Method of Observation.—The Current-drag.—Sounding in the Gulf-stream in Rough Weather.—The Temperature of the Stream.—*Aceste bellidifera*.—*Porcellanaster ceruleus*.—*Aërope rostrata*.—Dredged a Huge Syenite Boulder.—Le Have Bank.—Mirage.—Halifax.—Ice-markings.—Recross the Gulf-stream.—General Considerations.—Comparison between the Gulf-stream and the Japan Current.—*Calymne relictæ*.—*Ophioglypha bullata*.—*Lefroyella decoræ*.—Return to Bermudas.

APPENDIX A.—Table of Serial Temperature Soundings taken between St. Thomas, Bermudas, and Halifax.

APPENDIX B.—Table of the Bottom Temperatures taken between St. Thomas, Bermudas, and Halifax.

APPENDIX C.—Specific Gravity Observations taken between St. Thomas, Bermudas, and Halifax.

APPENDIX D.—Table of Meteorological Observations made in crossing and recrossing the Gulf-stream.

As I have already mentioned, toward the end of April we left Bermudas for a time, crossing the Gulf-stream to the neighborhood of Sandy Hook. We coursed along the outer edge of the Fishing Banks to Halifax, where we remained ten days; and then we ran another section across the Gulf-stream in a southwardly direction, and returned to Bermudas on the 31st of May. Besides the very important one of getting braced up by a little cold weather before our long cruise in the tropics, our chief object in taking this trip was to see for ourselves the wonderful ocean-river which had excited so much admiration and interest, and given rise to so much controversy. We did not anticipate being able, in the short time at our disposal, to aid in throwing any additional light upon a phenomenon which has