

termed regenerated granite. Off Cape Frio, on the Brazilian coast, solid masses of this kind were formed in a few months, and in them were found imbedded, dollars and other treasures from the wreck of a vessel, to recover which an exploration by the diving bell was undertaken.

40. CURRENTS, AND THEIR EFFECTS.—The distribution over the bottom of the sea of the detritus brought down by rivers and streams, and of the materials worn away by the action of the waves on the shores, is principally effected by the influence of currents, which, from their regularity, permanency, and extent, may be considered as the rivers of the ocean. To this agency I can but briefly allude, and shall restrict my remarks to the Gulf-stream, which is the great current that transports the waters, and the temperature of the tropical regions, into the climates of the north. From the mouth of the Red Sea a current about 50 leagues in breadth sets continually towards the south west; doubling the Cape of Good Hope, it assumes a north-west direction, and in the parallel of St. Helena, its breadth exceeds 1000 miles; then taking a direction nearly east, it meets in the parallel of 3° north, along the northern coast of Africa, with a current from the north; entering the Gulf of Florida, they are reflected and form the Gulf-stream, which, passing along the coast of North America, stretches across the Atlantic to the British Isles. At the parallel of 38° , nearly 1000 miles from the Straits of Bahama,