

Laguna de San Rafael, some Spanish missionaries¹ encountered "many icebergs, some great, some small, and others middle-sized," in a narrow arm of the sea, on the 22d of the month corresponding with our June, and in a latitude corresponding with that of the Lake of Geneva!

In Europe, the most southern glacier which comes down to the sea is met with, according to Von Buch, on the coast of Norway, in lat. 67°. Now this is more than 20° of latitude, or 1,230 miles, nearer the Pole than the Laguna de San Rafael. The position of the glaciers at this place and in the Gulf of Penas may be put even in a more striking point of view, for they descend to the sea-coast within 7½° of latitude, or 450 miles, of a harbor where three species of *Oliva*, a *Voluta*, and a *Terebra*, are the commonest shells, within less than 9° from where palms grow, within 4½° of a region where the jaguar and puma range over the plains, less than 2½° from arborescent grasses, and (looking to the westward in the same hemisphere) less than 2° from orchideous parasites, and within a single degree of tree-ferns!

These facts are of high geological interest with respect to the climate of the northern hemisphere; at the period when bowlders were transported. I will not here detail how simply the theory of icebergs being charged with fragments of rock explains the origin and position of the gigantic bowlders of eastern Tierra del Fuego, on the high plain of Santa Cruz, and on the island of Chiloe. In Tierra del Fuego, the greater number of bowlders lie on the lines of old sea-channels, now converted into dry valleys by the elevation of the land. They are associated with a great unstratified formation of mud and sand, containing rounded and angular fragments of all sizes, which has originated² in the repeated plowing up of the sea-bottom by the stranding of icebergs, and by the matter transported on them. Few geologists now doubt that those erratic bowlders which lie near lofty mountains have been pushed forward by the glaciers themselves,

¹ Agueros, Desc. Hist. de Chiloe, p. 227.

² Geological Transactions, vol. vi. p. 415.