ARCTIC DRIFT AND OCEAN CURRENTS.

ILLUSTRATED BY THE DISCOVERY ON AN ICE-FLOE OFF THE

COAST OF GREENLAND

Of Relics from the American Arctic Steamer "Jeannette."

SCIENTIFIC IMPORTANCE OF THE SUBJECT.

It is a new and important fact, worthy of careful record by physicists of all nations, that ice-floes from north of Herald Island, opposite Bering Strait, dividing Asia from America, are drifted to the south-western point of Greenland in the Atlantic. The deep and constant interest manifested by this Academy in the American Arctic explorations of the *Jeannette*, which sailed from our port on July 8th, 1879, under command of Lieut. George W. De Long, U. S. N., and in the fate of her gallant crew, is well known to all scientific bodies throughout the world.

Humboldt, the father of modern science, that great and good man, when off the coast of Peru, first discovered the stream that bears his name. Both Humboldt and Sir John Herschel pronounced ocean circulation the greatest problem of terrestrial physics. Ocean currents, with inland water courses, have largely aided and often directed early migrations. Isothermal lines are not strictly coincident with parallels of latitude. Along the Atlantic seaboard of North America, a warm stream flows four miles an hour, which Dr. Croll tells us, conveys as much heat to northern Europe, as the entire Arctic regions obtain from the sun. Dr. Wm. B. Carpenter recently informed the British Association that oceanic currents flow northward into the Arctic, because cold water there sinks, and constantly stimulates the water from warmer regions to advance and fill its place.