

THE LATEST ARCTIC EXPEDITION.

The departure of the Arctic exploring ship *Jeannette* from San Francisco in July makes timely some remarks upon the endeavor to reach the pole by way of Behring's strait rather than Baffin's bay, the route heretofore chosen. The event has a peculiar interest to residents of the Pacific coast, because thence the new expedition set forth.

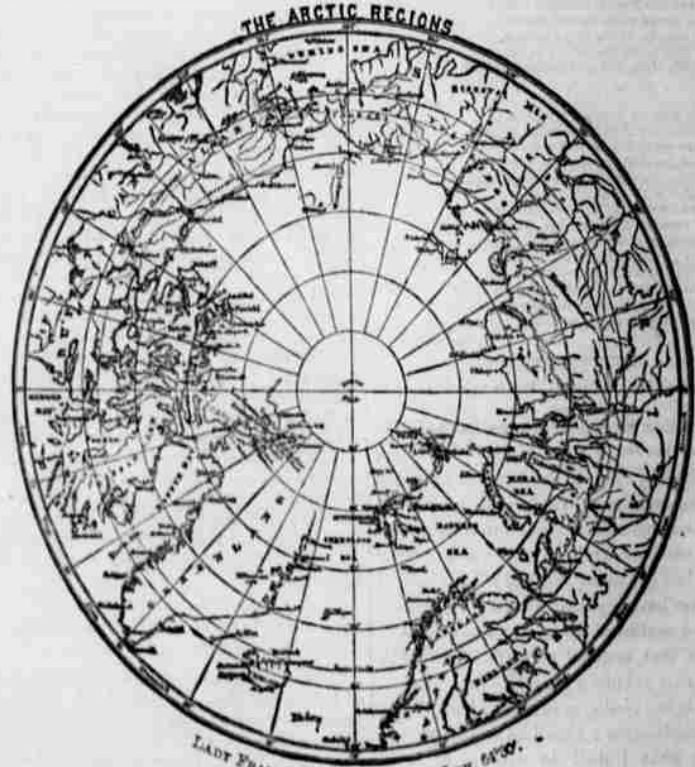
The numerous currents existing in the ocean have been the cause of the disasters attending former expeditions in search of the northwest passage by way of Baffin's bay. These ocean currents, the great rivers of the sea, move steadily on through waters comparatively tranquil, spreading over hundreds of miles upon the broad bosom of the ocean, not only upon the surface, but also in deep waters, often moving in different directions. The cause of these ocean movements is found in the difference of temperature between the polar and tropical regions acting directly upon the waters, the configuration of the continents exercising a certain controlling force as to direction and variation. The cold and heavier waters of the polar regions tend incessantly to flow into the warm and lighter waters of the tropics, and when both meet the colder waters sink and disappear below the warm waters, which return as surface currents towards the polar regions diverted from a perfectly straight course by the steady action of the earth's rotation and by continental obstructions. To illustrate this, place at one end of a glass vessel of suitable dimensions, filled with water, a piece of ice, and apply heat at the other end by means of a spirit lamp; then color the cold water end with carmine and the warm water end with indigo. A current of carmine will immediately flow towards the heated end and meeting warm water will sink, while the blue warm water will flow on towards the cold end, forming continuous currents of carmine and blue, one flowing towards the ice on the surface of the water, the other flowing towards the heat below the surface.

The Gulf stream, which is the current of the North Atlantic, affecting Arctic expeditions in that direction, arises from the accumulation of the waters of the equatorial current in the Gulf of Mexico. It proceeds east until its course is changed to the north by striking against the Bahama Banks. Flowing with great rapidity along the coast of the United States, gradually expanding in volume and diminishing in velocity as it proceeds northward, it turns east at the latitude of New York and crosses the Atlantic to the Azores, when it divides, the main branch returning southward along the coast of Africa, while the northern branch continues its slanting course to the British Isles and Norway. A branch of the gulf stream flows from about the latitude of Newfoundland north towards Iceland, and sweeping around in a semi-circle between Spitzbergen and Lapland, is divided into two branches by impinging against Nova Zembla, thence uniting its streams again in the Kara sea where it is lost in the Polar current. The Polar current, appearing at the eastern boundary of the Kara sea, flows steadily and rapidly around it and within the 80° parallel of north latitude, oftentimes within 7° of the north pole, forming the Polar channel, thence south between President land and Grant land, under the great ice barrier to Hall land, on the extreme northern end of Greenland, whence it is divided into two branches, the one flowing south along the east coast of Greenland, the other south along the west coast of Greenland through Baffin's bay and Davis strait, until reuniting after passing the most southerly point of Greenland it flows on steadily in one great current until it is lost by sinking beneath the gulf stream at or near the latitude of Newfoundland. This outflowing Polar current has been the cause of the failure of former Arctic

expeditions on the eastern coast. The ship is either forced back away from the pole by the force of the current, or else locked in the ice, it is floated with it in its southern course out into the Atlantic, the main outlet of the north Polar waters.

Upon the Pacific ocean the great equatorial current, divided by the coasts of Asia and Australia, divides, and sends one branch south, the other flowing north bends to the north and northeast after passing the Philippine islands and Formosa and becomes the Japanese current (Kuro-Siva), the Asiatic gulf stream. This noble stream, with its vast body of deep blue and warm waters, flows swiftly along the eastern coasts of Japan slanting across the north Pacific to the peninsula of Alaska, one branch sweeping northeast directly through Behring's strait into the Polar sea. Thence sweeping around along the north coast of America to the Arctic islands it unites with the eastern and southern flowing Polar current through the great ice barrier—Barrow's strait, Jones

neglected, whether made by deep sea soundings or in the air, for the benefit of meteorology. Every preparation has been made to provide for the comfort and safety of the men. Electric lights will be used for signaling, and these with 300 miles of wire with telephones, will enable the observers to communicate with the ship at a distance of 450 miles from her, so that sledging parties can report their discoveries or needs to those remaining on the ship. Ample provisioned for three years' voyage as to provisions, and safe for two years as to fuel, the officers and crew feel buoyant and cheerful, expecting nothing but success, in fact, determined to succeed. With six chronometers, chemicals, microscopes, and barometers of a new and perfect make, and a varied and valuable library, the 33 brave men who compose her full complement, will receive a schooling during her long Arctic sojourn, such as it does not fall to the fate of every man to receive. A strong, tight, comfortable ship, battened throughout with felt and canvas, and all iron below decks carefully



CAPTAIN HOWGATE'S MAP OF THE ARCTIC REGIONS.

and Smith's sound—uniting with and forming part of the great Polar current which finds its way to the Atlantic, carrying upon its bosom the ice of the Polar regions. In this current the *Jeannette* will be continually carried onward, east to the Atlantic ocean, as inevitably as she would be carried to the Gulf of Mexico by the current of the Mississippi. Whether frozen in the ice or not, she will be carried east to the Atlantic, or in the direction of the North Pole, by the steady flowing current in that direction. In fact, there is no current flowing in any other direction. The Polar currents all crowd to the east on the American coast, under the influence of the earth's rotation, and because the Atlantic is the only outlet, the shallow, narrow passage of Behring's strait preventing them from sinking under the warm Japanese current, so that from the Pacific to the Arctic ocean there is a constant inflowing current, and from the Arctic to the Atlantic a constant outflowing current, reason enough why the *Jeannette* should succeed if success will ever attend a Polar expedition. The scientific features of the expedition will be of the highest order. No observation will be

covered, the fate of the crew cannot be considered hard.

The route after passing Behring's strait will be governed entirely by circumstances—none has been or can be determined upon. The influence of the inflowing current will be permitted to determine the direction, for it is expected that this current will solve the problem of the Polar regions. After leaving San Francisco the ship will proceed to Alaska and receive additional supplies from her convoy, and then weigh anchor immediately for Behring's strait. Success to the *Jeannette* and to her mission.

BRIGHT little girl: "The robbers can't steal my mamma's diamond earrings, 'cause papa's hid them." Visitor: "Where has he hid them?" Little girl: "Why, I heard him tell mamma he had put them up the spout, and he guessed they would stay there."

"JOHNNIE, what is a noun?" "Name of a person, place or thing." "Very good, Johnnie, give an example." "Hand-organ grinder." "And why is 'hand-organ grinder' a noun?" "Because he's a person plays a thing."