

article of food. The mycophagists of the country are not as yet numerous; but they sometimes do an injury to their cause, by recommending the use of certain species of which perhaps the best that can be said is that they are not injurious. *Agaricus procerus*, and *Boletus strobilaceus*, figured in the present work, would not strictly be called edible, except by an enthusiastic mycophagist. We imagine that one whose first experiment in fungus-eating was made upon either of the species just named, would hardly be likely to repeat the experiment.

#### ROHÉ'S HYGIENE.

THIS book, of small size and modest appearance, is full of important matter, told in a very interesting manner. The preface says it is intended as a guide to the principles and practice of preventive medicine; and we think that every student of medicine should possess it, and study it. Air, water, food, clothing, soil, dwellings, hospitals, camp-life, and numerous other every-day topics, are discussed in condensed sections, but with clearness and intelligence. There are some points, however, which we think should receive greater attention. For instance, in giving the tests for air and water impurities, nothing is said of the methods of analyzing these media for germs. A short paragraph states that the air is the bearer of germs, and that quantitative analyses of the same have recently been made. Although the methods of such analyses are elaborate, and too expensive for students in general to undertake, nevertheless they ought to be explained in a text-book of this kind.

Emphasis is properly laid upon the dangers from sewage in drinking-water. Dr. Rohé takes exceptions to the statement, that rivers quickly purify themselves; and he quotes the report of the Massachusetts board of health for 1876, in which the foul condition of the Blackstone River was proven. He rightly claims that the rate of self-purification for rivers is limited, and may be easily exceeded by the rate of sewage pollution. The danger from using polluted ice is also described and illustrated by reference to cases of disease caused by such ice. Water does not purge itself of impurities by freezing.

The proof-reading of the book seems to have been hastily done, as we notice numerous errors of spelling. We heartily recommend the book, and praise it for the sincere and unaffected spirit in which it is written.

*A text-book of hygiene.* By GEORGE H. ROHÉ, M.D. Baltimore, Thomas & Evans, 1885. 8°.

#### THE RESCUE OF GREELY.

IN welcoming Lieut. Greely to the meeting of the geographical section of the British association last summer, Capt. Bedford Pim, himself an arctic traveller of great experience, said that on one of the early expeditions in search of Sir John Franklin, the American ships were observed dashing into the ice ahead of their English companions. "Yes," said an old quartermaster: "they fears nothing, because they knows nothing." But now, since the return of Greely, the gallant captain added, it was evident that "the Americans knew every thing, and feared nothing." This, too, must be the verdict of every one who reads this book, and sees the way in which Schley and Emory, in two Dundee whalers, not merely kept pace with the best ships in the Dundee whaling-fleet, but, pushing by them, rescued Greely and his dying comrades hours, if not days (considering the uncertainties of ice navigation), before the other ships could have reached Cape Sabine, thus saving the lives of several of the party.

It makes an interesting story, and is well told by Professor Soley, who, we suppose, wrote the greater part, if not all, of the narrative. The introductory chapters on the gateway of the polar seas and the circumpolar stations, are too brief to be of much value; while the account of the two previous attempts to reach Greely contains little that will aid one in forming for himself an opinion as to where the responsibility for the deaths of nineteen out of the twenty-five members of the Lady Franklin Bay expedition really belongs. The volume further contains a few good pictures; a track-chart showing the route of Schley's vessels; and the official chart of the region from Baffin Bay to Lincoln Sea, first published in *Science* last February.

#### NOTES AND NEWS.

A LETTER from Dr. Willis Everette, U.S.A., who recently arrived from St. Michaels, Alaska, at San Francisco, states that his original plan of crossing from the headwaters of the White-river branch of the Yukon to the Copper River, was defeated by the impossibility of getting any companion, either white or native, to undertake the voyage with him. Being thus unaccompanied, he was incommoded by the behavior of the Upper Yukon Indians, who endeavored to purloin his supplies; and therefore he descended

*The rescue of Greely.* By W. S. SCHLEY and J. R. SOLEY. Illustrated from the photographs and maps of the relief expedition. New York, Charles Scribner's Sons, 1885.

the river in August and September, 1884, to the region of the American trading-posts. Here he remained until the present summer, returning on the steamer *St. Paul*, to San Francisco, Aug. 30. Dr. Everette has occupied himself in collecting geographical data from traders, natives, and explorers; making sketches of trading-posts, native villages, and other points of interest on the Yukon; bringing together facts in relation to the fauna, flora, and ethnology of the Yukon and adjacent rivers; obtaining data for a history of the explorations by Americans since the purchase of Alaska, and collecting a full series of vocabularies from the Yukon tribes. He has particularly interesting geographical information from the little known Yukon Delta, the Tananah and Upper Kuskokwim rivers, the Shageluk district, and various hitherto imperfectly explored affluents of the Yukon. This information is necessarily in part of an approximate character; but most of it, it is thought, will prove a useful addition to our knowledge. Dr. Everette will now devote himself to the preparation of a work on the Yukon district of Alaska, for which his notes, charts, and collections will afford abundant material.

— The steamer *St. Paul* announces the wreck, July 31, of the bark *Montana*, in the Nushagak River, Bristol Bay; but it is believed no lives were lost. It is feared that by this disaster the Moravian mission to Nushagak may have lost part of its supplies or outfit.

— Lieut. Purcell of Stoney's expedition to the Kowak, or Kuak, river of the Kotzebue Sound region, has returned, disabled by illness. He gives the following notes on the progress of the expedition. The passage from Unalashka was extremely slow, owing to light winds; but *St. Michaels* was safely reached, and three natives and nineteen dogs were obtained, and the party proceeded to *St. Lawrence Bay*, where skin-clothing was purchased for winter use. The steam-launch *Viking* will be used in exploring the Kowak River, and birch canoes used when the limit of launch-navigation is reached. The expedition hoped to explore some two hundred and fifty miles of the river before going into winter quarters; and the engine of the *Viking* is arranged so as to work a small saw-mill-attachment to cut boards for building the houses, etc. After October, exploration will be carried on by sledge-parties. In May, 1886, Lieut. Stoney proposes to return to Hotham Inlet and complete its exploration, and to ascend the Nunatak, or Noatak, river, which has hitherto only been examined to a distance of a few miles from its mouth. The members of the expedition were well and enthusiastic, and much may be expected from their researches. On the way up, *Bogosloff Island* and the *Grewingk volcano* were visited. There was less smoke than in 1884; and a small spit was making out to the northwestward of the island, but there were no other changes of importance.

— The September pilot-chart, issued by the Hydrographic office, contains several novelties appropriate to the season when tropical hurricanes come up to our coast from the West Indies. The weather-changes, indicative of an approaching cyclone, and the manoeuvres needed to avoid its centre, are printed

in the margin, with a storm-card for better illustration. In the latter, the winds are represented blowing in true circles, which certainly should be corrected. Besides the track of the cyclone which damaged Charleston on Aug. 24, 25, eleven others are added from former years, to give shipmasters an idea of the course followed by these storms in different parts of the ocean. The wrecked schooner, *Twenty-one Friends*, has been reported twelve times from April 14 to July 31, floating in the course of the North-Atlantic drift, from about latitude  $40^{\circ} 20'$ , longitude  $55^{\circ}$ , to latitude  $50^{\circ} 20'$ , longitude  $27^{\circ}$ ; thus averaging about thirteen miles a day to the east north-east. The successful use of oil in stormy weather is illustrated by a number of examples.

— Twenty-one pages of "Results of meteorological observations made at the U. S. naval observatory during the year 1881" are recently published. The reductions were made under the direction of Lieut. Wilson, Professor Eastman having been relieved from charge of the department at his own request. The tri-hourly observations, even of the clouds, were made by the observatory watchmen, "who have acquired such a degree of skill as insures a reasonable accuracy in their work." The same can hardly be said of workers on the reductions, as mistakes are very numerous. The first half of table II. occupying half a page, when corrected of its more visible errors, looks like a severely treated proof-sheet. The form of publication is also peculiar: under temperature of the air, the columns marked 'highest' and 'lowest' do not contain the records of the maximum and minimum thermometers, but show only the highest and lowest of the tri-hourly readings; the true maxima and minima being inconveniently set apart in a special table. In table V. we find the lowest temperature for August by minimum thermometer to be  $60^{\circ}$  on the 14th, while the tri-hourly observations give it as  $57.5^{\circ}$  on the 19th. Looking back to the daily records, we see that the minimum for the 14th is not  $60^{\circ}$  but  $66^{\circ}$ , while the real minimum for the month is  $56.5^{\circ}$  on the 19th. Again: the mean minimum for May is given as  $56.9^{\circ}$ ; the mean of the lowest tri-hourlies is  $53.6^{\circ}$ . The tri-hourly readings are called 'hourly' in all the tables, and the monthly range of daily means is called 'extreme mean range for the month.' No reduction except averaging is made for the wet-bulb thermometer, so that all humidity factors have yet to be worked up. For January and December, the relative humidity from the wet and dry bulb monthly means comes out ninety-five and ninety-one per cent, which seems hardly possible even in the naval observatory. In future numbers of the Results, a considerable increase in accuracy over this one might reasonably be looked for; and much convenience would be gained by the use of bold-face and hair-spaced type to indicate the highest and lowest values in every column of records. The care given to the thousandths of an inch in the rainfall-data might be transferred to a determination of the accuracy of the four-inch rain-gauge.

— Mr. W. F. Denning of Bristol, Eng., directs at-

tention to the fact, that, toward the end of November next, the circumstances appear to be extremely favorable for a recurrence of the slow meteors from Andromeda, which formed such a fine display in 1872, and which had been previously observed by Heis in 1847, by Flaugergues in 1838, and by Brandes in 1798; for if Biela's duple comet still exists in any considerable degree of condensation, and if it has preserved nearly the same orbit as during the years 1826-52, it will be in perihelion only a short time before the earth crosses the node; and the conditions for a meteoric display will be even more auspicious than in 1872. The question, however, arises, whether planetary perturbations may not have so disturbed the orbit as to have materially altered the periodic time, and to have otherwise so modified the elements as to render the meteor-shower no longer visible, at least in its best aspect, from the earth. There was no sign of the shower in 1879, and the ensuing November ought to settle the question of its continued existence. If there is no shower of these meteors in November, their absence may be interpreted as strong evidence that the meteor-system was so disturbed by contact with the earth in 1872, as to have suffered considerable modification of its orbit.

— After most careful researches, extending over many years, Professor Karl Pettersen has arrived at some very important conclusions concerning the formation of the fiords in northern Norway, which are published in *Nature*. From his studies at Balsfjord, he has concluded that the granite blocks upon the surface were carried along the level of the sea on drift-ice when the sea was about one hundred and twenty feet higher than at present. A sharply defined line at this height, above which no blocks are found, seems sufficient to prove this; for, if the drift was deposited by a slowly gliding inland glacier, there would be no such line. He has therefore come to the conclusion, "that the Balsfjord is not of glacial origin, but formed an incision or depression in the mountain of older origin than the glacial age." He further believes that this conclusion may, in the main, apply to the question of the formation of all fiords in the north of Norway.

— The island of Formosa, which the French have just conquered, is very rich in vegetable and animal life, on account of its excellent climate. This island, though but three hundred and sixty kilometres long, and one hundred and forty wide from east to west, is the chief source of our camphor supply. The tree (*Laurus camphora*) grows in Japan, China, Sumatra, and Borneo also, but nowhere in such abundance as on Formosa. In order to obtain the camphor, the wood is cut into small bits, and placed in a crucible, from which the vapors are distilled over by a gentle heat, and collected upon a network of rice-stems.

— Since 1813 pieces of native iron have been brought from Greenland by many explorers, and have, in nearly every case, been ascribed to meteoric origin. Steenstrup, in his third voyage to Greenland (1876-1880), however, found the iron native in a basaltic rock at Asuk, in grains varying from a fraction of

a millimetre to eighteen millimetres. It is also found on the western and northern sides of Disko Island, and in other places. This settles beyond a doubt the question of the origin of the Greenland native iron, and the ore may be of great commercial importance in the future.

— The signification of the names of some Indian mountains of great height may be of interest. Kinchinjunga is the highest of a group of eight principal peaks, which rise from a mountain mass of which the view from Darjiling occupies about sixty degrees of the horizon. Its name is a compound and corruption of four Tibetan words, — *kung*, 'snow,' *chen*, 'great,' *jo*, 'masses,' *nga*, 'five' or 'several'; in short, the five great snowy peaks. The word 'five' is in this case not explicit, but indicates, so to speak, a handful. Mount Everest of British maps, supposed by many geographers to be the highest mountain on the globe, has a more attractive proper name in Tibetan, — *Deva-danga*, 'God's home,' usually shortened in conversation into *Deodanga*. *Dobola-giri*, the 'white mountain,' rises about one hundred miles westward from *Deva-danga*, though the name has been mistakenly applied to one of the high summits of the Kinchinjunga uplift. It is found on most maps as *Dhaolagiri* or *Dwahlagiri*; while *Deva-danga* is often found inscribed with its Indian appellation, *Gaurisanka*.

— Hans Kaan's study of hypnotism (*Ueber beziehungen zwischen hypnotismus und cerebraler blutfüllung*. Wiesbaden, *Bergmann*, 1855. 35 p. 8°) is a maiden effort, in which, *more germanico*, a single mustard-seed of observed fact is wrung and pressed, and considered in so many lights that a bay-tree of letter-press grows out of it. The fact in this instance is, that a certain very perfect hypnotic subject was awakened immediately out of her 'lethargic' state by the application of a hot compress to the head, whilst a cold compress had rather the opposite effect. In her 'cataleptic' state, on the contrary, a hot compress was without influence; while a *cold* compress soon brought her into the less 'deep' lethargic state, whence by the *hot* compress, she could be brought immediately into the normal condition. The experiment was repeated, with identical results, more than sixty times. The considerations spun upon it are relative to the condition of the blood-distribution in the brain during the two states. Experiments with the plethysmograph were instituted; and after a discussion, to which the author's lack of literary ability gives an almost impenetrable obscurity, the following conclusions are advanced as probable: that the hypnotizing passes, etc., produce a reflex anaemia of the cerebral cortex, out of which a hyperaemia gradually develops; and that these states successively pass downwards to the basal ganglia. In the main, Dr. Kaan's observations agree with those of Tamburini, and with the effects of amyl-nitrite, which seems to deepen, rather than relieve, the hypnotic state. It is made more and more probable that the cataleptic state, which is rare, and may be considered a sort of climax of trance, is accompanied by an intense hyperaemia of the brain.