

The history of this derelict furnishes the strongest possible proof of the importance of this subject to masters of vessels, as well as of the cordial support which they have given to the Hydrographic Office in its efforts to collect and publish early and accurate information by means of which this danger to navigation may be diminished. The various commercial nations should unite in the effort to keep the seas clear of such obstructions, and it is a subject that may well be discussed by the forthcoming International Maritime Conference.

HEALTH MATTERS.

TYPHOID STATISTICS.—Professor Ruata of Perugia is authority for the statement that there are annually in Italy nearly 300,000 cases of typhoid-fever, of which number 27,000 prove fatal. One-third of the persons in Italy who reach the age of forty-five have the fever, and in some districts more than three per cent of the population die from this one cause.

ARSENIC IN FABRICS.—The *London Chemical News* states that Mr. A. W. Stokes has examined a hundred samples of imitation Indian muslins and cretonnes, and found that twenty-three per cent contained arsenic in appreciable quantities, the highest proportion 2.1 grains of white arsenic per square yard. The colors in which arsenic was principally present were the terra-cotta reds and the greenish-browns. Of the wall-papers submitted to Mr. Stokes by various manufacturers, ten per cent were found to contain arsenic. Thirty other articles of household use, such as plushes, velvets, carpets, mats, silks, etc., were examined, and in only one sample—a little flax mat of green color—was arsenic found.

BACTERIA IN THE GLACIERS.—Dr. Schmelk of Christiania (*Centralblatt für Bacteriologie*) has found vast colonies of bacteria in the ice of the Jerstedalsbræ glacier and in the streams fed by it. They appear under the form of rods, and resemble the *Bacillus fluorescens liquefaciens*. During their period of growth these bacteria emit a fluorescent material. They multiply with great rapidity during periods of thaw.

A NEW DEODORANT.—Bromine has for a long time been recognized as being valuable in the treatment of gangrene and foul-smelling ulcers; but until recently its merits as an effectual and cheap deodorant have not been appreciated, according to the *New York Medical Journal*. It was brought into prominence a few months ago by Mr. Martin, the chemist of the health department of this city, who suggested its use upon the earth thrown up in laying the electric subways. As it is a by-product obtained in the manufacture of salt, and is not used extensively in the arts, it is sold at a very reasonable price,—about seventy cents per pound. It has the property of precipitating the hydrocarbons of illuminating-gas, and thus can be used to deodorize the earth exposed in excavations in the vicinity of gas-mains. More valuable than this is its effect upon decomposing organic bodies, which it renders completely inoffensive. This property renders it particularly valuable for use in stables, privy-vaults, urinals, cesspools, or in any place which may contain foul-smelling organic matters. It is soluble in about thirty-three parts of water; but a solution of this strength is not advisable, as there is a constant escape from it of the vapor of bromine, which is very irritating to the eyes and air-passages, and which may even attack wood and metals. For ordinary purposes it is used in solutions containing one part by weight to about eight hundred of water. In this strength it may be used freely without its affecting anything which it may touch. A few gallons used daily will remove all ammoniacal odors from stables, or a few quarts will thoroughly deodorize the entire plumbing system of an ordinary house. It also might be used with advantage upon ordinary house-garbage, which usually becomes offensive so speedily in warm weather. There would appear to be scarcely any limit to its usefulness in this branch of sanitary science; and it will, as soon as its merits are better known, undoubtedly be adopted universally as a substitute for the deodorants now in use, which usually act by substituting one unpleasant odor for another. The only drawback in its use lies in the fact that the undiluted bromine is strongly corrosive, and, if it touches the skin, causes a painful

burn. Where it is used in large quantities, this can be obviated by opening the bottle, or, what is simpler, breaking it, under water. As its use becomes more extended, it will undoubtedly be put up in pearls or tubes containing only as much as would be needed at one time in the average household.

TRANSMISSION OF DIPHTHERIA.—Dr. De la Roche believes that diphtheria can be transmitted from animals to man. He has had under his care two women suffering from diphtheria, which he thinks he has traced to the contamination of drinking-water from a cistern by the excrement of pigeons, which had been washed down by the rain from the roof on which these birds had perched. Admitting the possibility of the transmission of diphtheria in this manner, the means of combating it are simple. In places where spring-water and well-water are not available, or where the supply consists of rain-water collected in cisterns, it is well to limit pigeon-breeding, and to construct dove-cotes as far away as possible from dwelling-houses. As to the construction of cisterns, they should be built according to the rules of public hygiene laid down by Gania in his work entitled “*Utilité des Citermes*.”

MALARIA.—Dr. Henry B. Baker, the well-known sanitarian, contributed a paper, at the last meeting of the American Medical Association, on “Malaria, and the Causation of Periodic Fever.” After an able discussion of the subject, he sums up as follows: “So far as evidence is yet presented, it seems to be proved, then, that (1) intermittent fever is proportional, directly or inversely, to the average daily range of atmospheric temperature; (2) the controlling cause of intermittent fever is exposure to insidious changes, or changes to which one is unaccustomed, in the atmospheric temperature; (3) in the mechanism of the causation of intermittent fever, the chief factor is the delay in the re-action from exposure to cool air (this delay, extending to a time when greater heat-loss should occur, results in the abnormal accumulation of heat in the interior of the body, and in disturbed nervous action,—the chill), and the final re-action is excessive because of the accumulation of heat, and sometimes because it occurs at the warmest part of the day; (4) the fever is the excessive re-action from the insidious influence of the exposure to cool air, and it is periodical because of the periodicity of nervous action, and because the exposure and the consequent chill are periodical, owing to the nightly absence of the warmth from the sun; (5) residence in valleys, or on low lands through which or upon which cold air flows at night, and thus causes insidious changes in the atmospheric temperature, favors intermittent fever; (6) in our climate, those measures, such as drainage, which enable the soil to retain warmth during the night, and thus reduce the daily range of temperature immediately over such soil, tend to decrease intermittent fever among residents thereon; (7) in the cure and prophylaxis of intermittent fever, those remedies are useful which lessen torpidity, and tend to increase the power of the body to re-act promptly to insidious changes in atmospheric temperature; (8) the slowness of the pulse, and other indications of torpidity, associated with retention of bile or with certain disturbances of the functions of the liver, are well known; but, so far as known to the writer, these conditions have not heretofore been considered as causative of the fever in the manner herein suggested.

SCIENTIFIC NEWS IN WASHINGTON.

Rock-Gas and Related Bitumens.—A Diagram of the World's War-Vessels.—The Eastern Cherokees.—Some Habits of Koreans.

Rock-Gas and Related Bitumens.

IN a communication (the second on the list) presented before the Philosophical Society on Feb. 2, Mr. W. J. McGee pointed out, that, *pari passu* with the industrial development accompanying the utilization of rock-gas, geologic science has made an unparalleled stride within a few months. When exploitation for gas began in Ohio in 1886, the geologist found himself utterly unable either to guide the efforts of the prospector or to predict the results of his work; yet within the ensuing two years the laws governing the accumulation and distribution of gas and oil have been so fully developed that the rock-gas problem to day claims a solution as satisfactory as