

Man's high hat for many generations has varied within very narrow limits, and has always been ugly and unnatural. Why it should so long have held its sway it is hard to understand. An artist can not make it interesting in his work. It will not compare with the Oriental turban, the Scotch bonnet, or even the slouch hat, for comfort or graceful capabilities; but the average man will wear it long after his faith in hair tonics and restorers with seductive promises has been shattered. Still, let him remember, as he takes his after-dinner repose, that his favourite hat will certainly and inevitably extend the pasture-lands of the domestic fly.—*W. C. Gouinlock, in Popular Science Monthly.*

THE MICROBE OF MALARIA.

DR. GEORGE M. STERNBERG has communicated to the Scientific Association of Johns Hopkins University an account of the confirmation, by his own observation, of Laveran's discovery of the germ, or micro-organism, of malaria. Laveran found this microbe in the shape of an amœboid parasite, in the blood of patients suffering from fever; and also observed that the germs disappeared from the blood when quinine was administered in effective doses. His observations were confirmed by Richard, in 1882, and by Marchiafara and Celli from their researches in the Santo Spirito Hospital of Rome. During a recent visit to Rome, Dr. Sternberg accompanied these gentlemen to the Santo Spirito Hospital, where a most satisfactory demonstration was made to him of the presence and amœboid movements of the parasite, in blood drawn from the finger of a patient in the first stage of a malarial paroxysm. Marchiafara and Celli have induced types of intermittent fever, in previously healthy persons, by injecting into the circulation a small quantity of blood drawn from a malarial patient during his fever. The presence of the parasite in the injected blood was demonstrated, and it was found again in the blood of the persons subjected to the experiment during the induced intermittent paroxysms. These paroxysms were arrested, and the parasite disappeared from the blood when quinine was administered.

SYSTEMATIC OBSERVATIONS OF THE AURORA BOREALIS.

No country is more favourably situated for the systematic observation of the phenomena of terrestrial magnetism and the aurora borealis than Norway. Extending from the fifty-eighth to the seventy-first degree of latitude, it reaches farther north than any inhabited land, and lies nearer to the centre of magnetic disturbances than any other state of Europe. The maximum zone of the northern lights hangs over the northern and northwestern part of the land. The northern and southern districts are connected by numerous telegraph lines and through the telephone exchanges of Drontheim and Bergen. Sophus Tromholt began to organize a system of investigations in 1878, and from September of that year to April, 1879, he recorded 839 observations of 154 northern lights. His idea met with favour, and the method of concerted observations has spread since that time to Sweden, Denmark, and Finland, England, Greenland, and Iceland. The observations of the winter of 1879-80 were much more extensive than those of the previous winter, being 1,600 in number of 249 auroras at 357 stations. In the winter of 1880-81, 5,200 observations were made of about 300 auroras, at 675 stations; and in the winter of 1882-83, 1,500 persons in the North European countries participated in the work. Notices are now regularly transmitted from fifty Swedish and Norwegian telegraphic stations of all electrical disturbances, with exact minutes of time, direction, etc.; observations that are of the more importance, because not a day passes that something of the kind does not occur somewhere in Norway. Mr. Tromholt intends to publish the year's results of these observations cartographically, with notices of associated meteorological phenomena. For the complete registration of the telegraphic perturbations, he has constructed an apparatus which graphically represents the time of their happening, their strength, and direction, which is connected during the night with a north and south telegraph line 1,400 kilometres long, while during the day telephones are used. This enterprise is assuming an extent which places its effective control beyond the power of one man. Mr. Tromholt therefore proposes that the Government establish an in-

stitute at Drontheim to become the central station of the world, to which all observers on land and sea shall transmit their reports.—*Popular Science Monthly.*

IMPORTANCE OF THE PLUMBER'S ART.

A PLEA for a higher recognition of the plumber has been made by Mr. William Halley in an address before the Ohio State Sanitary Association. Of the various craftsmen who assist in constructing dwellings, there is not one, perhaps, whose position in the light of sanitary science is more important and responsible than his. In days gone by he was considered a mere worker in lead to supply the simple wants of his employer, as ignorant as himself of the physical laws of his occupation; but now his work assumes the dignity of a sanitarian's. Yet there are few vocations in which skilful work is so little appreciated as that of plumbing. People are not interested in the work because it has no reference to ornamentation, and is almost wholly out of sight. A great deal depends on the plumbing. If it is perfect, the house is healthy; if imperfect, an unhealthy habitation is the result. It is easy to see that it is the most important feature of a house, to which may be added all the convenience, beauty, and polish of a palace. But first of all, stamp it with the character of health by sanitary plumbing. Even with the best devices it is impossible to prevent sewer-gas at times. There are many accidents by which plumbing-work will become crippled and allow gas to escape. Hence it is advisable to exercise extreme care about its location and quantity. Unfortunately, for the plumber and for sanitary effect, the architect is too apt to ignore plumbing and give undue attention to other matters which serve better to display his æsthetic conception. House-drainage is made secondary and subservient to convenience and display. At the last moment it is remembered that the house must be drained, and plumbing specifications are made to fill in the cubby holes. That is why so much plumbing is worse than useless.

THE SISTERS OF AGNES STRICKLAND.

MISS JANE STRICKLAND's memoir of her sister Agnes, author of *The Queens of England*, has just appeared from the press of the Blackwoods. The work had long been in manuscript, but its appearance was delayed owing to the ill health of the writer, who is now eighty-seven years of age. Before the publication of the book, a paragraph appeared in some of the papers of this country, stating that the author was the last survivor of the family. But this is not so. Mrs. Trail, well known to English and Canadian readers, is still living in the picturesque village of Lakefield, Ontario. The family stood thus in order of birth. Elizabeth, Agnes, Sara, Jane, Catherine Parr, Susanna, Eleanore, who died in infancy, and two brothers, Samuel and Thomas. Catherine Parr (Mrs. Trail) and Susanna (Mrs. Moodie) went to Canada in 1832, and settled first in Peterboro, on the banks of the rapid Otonabee, from whence they moved to Lakefield. Mrs. Trail was the first of the sisters who appeared in print. In the summer of 1818, when only sixteen years old, she wrote a little series of stories for children. The manuscript was seen by a friend, and unknown to the author was sent to Harris, of St. Paul's Churchyard, London, who accepted it at once and sent her a check. Before she left England she wrote many juvenile books, and since her arrival in Canada her pen has not been idle. Among the best known of her works are *Letters from the Blackwoods, by an Officer's Wife*; *Asar in the West*, and *The Canadian Crusoes*. The last is still a very popular book among young readers. It was reprinted by Francis, of New York, and by Crosby, of Boston. Mrs. Trail's latest work is *Studies of Plant Life; or Gleanings by Forest, Lake and Plain*. It was published in Ottawa in 1884. It is entirely original in style, and deals with the native productions, not as a manual of botany, but as the natural history of the forest—in other words it is a readable floral biography. The illustrations are from the hand of Mrs. (Col.) Chamberlain, a daughter of Mrs. Moodie. Mrs. Moodie, who died a few years ago, was the author of many popular stories and sketches. For the past two years Mrs. Trail has been engaged in writing *A Family Record*, which is still in manuscript. Though in her eighty-sixth year, she is full of energy, and of vigorous intellect.—*N. Y. Critic.*