

ELECTRIC CANDLES—A NEW THING.

"Among other battles at which one assists this moment, in France, is that between electric candles and gaslight. Yesterday evening I visited this peculiar candle manufactory, in the Avenue des Villiers, the director of which is a Russian engineer and also the inventor, M. Joblockoff. Now, as Voltaire observed, light comes from the north. The laboratory is hung with pictures and colored stuffs, which can be as easily distinguished in their shades as if in full noonday. The candles have the same ratio to gas and oil lamps as sun to moonlight. The inventor poured some glasses of water on the flame of his dips, but they burned away all the same. They emit no smoke, and consequently cannot blacken objects, nor any heat—350 times less than an ordinary candle—hence books will not fall out of their bindings, nor tapestry turn into black snuff. There can be no fire, no explosions, and the light can be laid on some three to fifteen times cheaper than gas or oil light. The light does not tremble or twinkle much, and none at all if it passes through a globe slightly opaque. The candle is composed of two cylindrical sticks of charcoal, separated by a preparation of sand, ground glass and kaolin; a magneto-electro machine furnishes the current, which flows from one point to the other of the charcoal rods. Each candle burns three hours, and the extinction of one lights up another. We are more than on the eve of a great discovery; but as the proof of the pudding is in the eating of it, the invention will soon be tested, as the circus, the opera, the Louvre drapery shop, and the railway termini are to be illuminated by the new process."

THE CURE OF DIPHTHERIA.

Dr. E. N. Chapman, of Brooklyn, N. Y., has discovered an antidote to the poison of diphtheria, by which the percentage of deaths is reduced to less than one in fifty. Statistics show that the percentage of recoveries in cases treated under the usual practice is about thirteen, or eighty-seven out of a hundred sufferers succumb to the fell disease.

Diphtheria first appeared in this country in 1858. Dr. Chapman, in 1859, lost several cases, and became distrustful of the regular methods. He had been using alcohol in the cure of ship fever, and he determined, though contrary to all rules, to try it in diphtheria. To his surprise, several of his patients recovered. He then tried quinia, and found it acted well, but not so quickly. At last he settled on a combination of the two, alcohol and quinia, and with these remedies, he claims that diphtheria is more amenable to treatment than many common diseases. In an epidemic, such as diphtheria, all are affected by the morbiogenic; but a few only yield to it. Mature, vigorous persons have vitality enough to resist the disease. Children and weakly adults are its usual subjects. Dr. Chapman considers that there is, almost always, super-added a local and direct exciting cause, such as defective exercise, improper diet, dark rooms, damp houses, imperfect ventilation, and poisonous emanations from decomposing filth in privies, cesspools, sewer pipes, etc. To such agencies the strongest constitution will soon succumb. The blood being deteriorated, its crisis is impaired and its vitality lowered; and then the sympathetic nerves, failing to receive due stimulus, waver in their efforts to carry on the animal functions.

"All local treatment," he says, "is worse than useless." It exhausts the nerve force and induces greater injection of the blood vessels, thus favoring the exudation.

"Alcohol neutralizes the diphtheritic poison, sets free the nerves of animal life, subdues the fever and inflammation, destroys the pabulum that sustains the membrane, cuts short the disease, conquers its sequelae, and shields other members of the family from an attack. Upon the subsidence of the fever, as is usually the case in from twenty-four to thirty-six hours, a purulent secretion begins to loosen the membrane, and soon, thereafter, to detach it in flaky, ragged fragments. This process may take place, and recovery be possible, even when the larynx and trachea are implicated. The membrane is seldom renewed, when this secretion is maintained by a steady use of the remedy. Alcohol is as antagonistic to diphtheria as belladonna to opium, or quinia to malaria. Like any other antidote, it must be given promptly at the outset, or otherwise its potency will be lessened, perhaps lost altogether.

"Alcohol does not act as a stimulant, nor induce any of its ordinary effects. Enough may be given to cause profound intoxication in health, and yet there exists no signs of excitement or odor in the breath.

Quinia is an efficient alloy to alcohol. It energizes the ganglionic nervous system, and thus enables the organism to right itself and resume its function.

Dr. Chapman sustains his position by citing numerous cases in which this treatment was successful. He states that in his long experience, he only knew of one case where a drunkard had diphtheria. He generally gives the alcohol in the form of whiskey.

DRAIN FROM A CESSPOOL.

(See page 25.)

The best method of disposing of the waste of the house is a matter of serious consideration with persons living in country places, or in small towns or villages, which are not provided with a complete system of public drains and sewers. This waste has a considerable value, if it can be used as a fertilizer upon grass, in the compost heap, or in the garden, and some manner of thus using it should be provided if possible. Generally, where cesspools are used to collect the waste from water-closets, bath-rooms, and wash-tubs, in houses provided with these conveniences, there are some matters which it is desirable to retain in the cesspool, as the liquid portion only is conveniently utilized. Sometimes cesspools are drained into rivers or smaller streams, and the overflow only is required to pass off. In this case it will be convenient to provide a screen for the outflow, to prevent objectionable matters from escaping. If this is provided, the cesspool may then be flushed out at every heavy rain, and to a very considerable extent cleansed or purified without permitting any disagreeable results, and the periods of thorough cleaning out postponed for several years. A screen that has been used for this purpose, is shown at figure 1. It consists of a piece of strong galvanized iron wire netting, with a mesh half an inch square, cut into the shape shown at figure 2. The drain-pipe is passed through the round hole in the center, which is cut to fit the pipe, and the netting is bent where shown by the dotted lines, around the shoulder of the pipe, in the form shown at figure 1, the flap at each end forming the ends of the screen. The joints are then secured by lacing with wire. It is impossible for this screen to be choked and rendered useless, for when the water rises to the lower part of the screen there is no current against it to hold floating matter, and this rises until the current flows out at the mouth of the outlet. If the floating matter gathers here, the water escapes under it; if not the mass rises with the water until an opening is cleared below it. The inlet to the cesspool is shown on the opposite side of it. In a case in which such a screen as this was made, the top of the cesspool was covered with a flag-stone, and a round bed of soil was made over it and planted with hardy bulbs, by which the precise locality can always be ascertained.

SINGING MICE.—The question as to whether mice sing, has been revived. M. Brierre described before the Society of Acclimatization his experience in La Vendee in 1851-3. He had bought an old cupboard which happened to contain mice. About sunset the mice began to sing. By lubricating the doors and hinges of the cupboard, M. Brierre was enabled to open it in one instance, without disturbing the song. He literally caught the songster in the act. It was an old mouse, which held its nose in air like a dog when howling. Its song was like that of a wren. M. Brierre seized the mouse in his hand, but afterward allowed it to escape. On subsequent evenings the singing was renewed. There were no birds in the house. The utterance of a less musical sound has latterly been discovered as part of the capacity of the scorpion, on the authority of Mr. J. Wood Mason, and described before the London Entomological Society. The experiments were made at Bombay, by teasing two large scorpions, placed face to face on a table. The sound is stridulous, somewhat like that from scraping a stiff brush with the finger-nails. An anatomical examination showed that the insect is provided with an apparatus consisting of a scraper and a rasp; these appendages could be made to give sound when separated from the scorpions, after death.—*N. Y. Tribune*.

[The singing mouse is the common field mouse, which, in winter, often takes up its abode in dwellings.—*Ed. C. M. M.*]

THE LIQUEFACTION OF OXYGEN.—On Saturday last the liquefaction of oxygen was for the first time accomplished. The successful experimenter was Professor Pictet, of Geneva, who accomplished the liquefaction of the gas at a temperature of 100 deg. Cent., and under a pressure of 320 atmospheres.

AMERICAN SMALL ARMS FOR TURKEY.—The Providence (Rhode Island) Tool Company turned out 3000 guns for the Turks in one week recently, and the manufacture is still going on, although the Turkish Government is stated to be in arrear with its payments.