

nated, in a great part at least, by the previous breathing of it by themselves or by other occupants of the house. This course, I believe, might be pursued in any part of our common country. I am certain that I know of patients who have become well, and able to attend to the business of life, under this course. May we not also at times send our patients over short distances in open vehicles, instead of thousands of miles off in ill-ventilated cars to an entirely different climate? Have any of us ever sufficiently tried this open-air journeying at home, so to speak; that is, in the region of the country where the patient lives, wherever that may be?

Certainly this proposed course has at least two sound physiological principles in its favor: viz., a gentle exercise, for many hours in each day, of the whole frame; and an almost perpetual change of air drawn in with each respiratory act, as occurs while driving in a carriage open at the front, and in walking. I have no objection to drugs, properly chosen, and I almost always administer them; but if the choice were given me to stay in the house and use medicines, or to live constantly in the open air without them, I should infinitely prefer the latter course in case of my being threatened with pulmonary consumption.

HEALTH MATTERS.

Typhoid-Fever should be reported to the Health-Officer.

TYPHOID-FEVER is a disease which the State Board of Health of Michigan has declared to be "dangerous to the public health," and as such it comes under the law requiring physicians to report to the health-officials. Any physician who shall neglect to immediately give such notice "shall forfeit for each such offence a sum not less than fifty nor more than one hundred dollars." After Oct. 1, any householder who shall refuse or wilfully neglect immediately to give such notice shall be deemed guilty of a misdemeanor, and is liable to a fine of one hundred dollars, or, in default of payment thereof, may be punished by imprisonment in the county jail not exceeding ninety days.

It seems important that the people generally shall understand this new law, which applies to scarlet-fever, diphtheria, small-pox, and all such dangerous diseases, as well as to typhoid-fever; but at this time of the year typhoid-fever is usually most prevalent, and it is especially dangerous in times of drought: therefore the safety of the people may now be greatly promoted by having every case of typhoid-fever reported to the health-officer, who is by law (Section 1, Act 137, Laws of 1883) required to promptly attend to the restriction of every such disease. A new law, which takes effect Oct. 1, makes it a misdemeanor, punishable by fine or imprisonment, for the health-officer knowingly to violate that section of the law, or for any person knowingly to violate the orders of the health-officer made in accordance with that section. But the actual penalties which are incurred by the violation of these laws are the death penalties to many of the people, about one thousand being lost in Michigan in each year from typhoid-fever. The saving of a large proportion of these lives is the real reason for the effort, in which it is hoped all the people will join, for the restriction of typhoid-fever and other dangerous diseases.

HOW MUCH SHOULD A CITY PAY ITS HEALTH-OFFICER? — The Michigan State Board of Health has recently published a paper by its secretary, Dr. H. B. Baker, in which he asks the question how much the average city or village can afford to pay its health-officer. He answers this question in this way: "Statistics which cannot be questioned prove, that, in those localities in Michigan where the recommendations of the State Board of Health are carried out, about eighty per cent of the deaths from diphtheria and scarlet-fever are prevented by the thorough isolation of all infected persons, and the thorough disinfection of all infected persons, things, and places. Statisticians usually value a person in the prime of life as worth to the community about one thousand dollars." Dr. Baker thinks that in a village of fifteen hundred inhabitants a health-officer can easily save the lives of two children and one grown person in each year, and he concludes that such a village can well afford to pay its health-officer two thousand dollars for the prevention and restriction of scarlet-fever, diphtheria, and typhoid-fever — and make money by the transaction.

INGENUITY OF CRIMINALS. — The *Medical Press and Circular* finds in an Indian contemporary some curious instances of misapplied ingenuity on the part of certain habitual criminals in that country. The discovery on a prisoner of a heavy leaden bullet about three-quarters of an inch in diameter led to an inquiry into the object to which it was applied. It was ascertained that it served to bring about the formation of a pouch-like recess at the base of the epiglottis. The ball is allowed to slide down to the desired position, and it is retained there for about half an hour at a time. This operation is repeated many times daily until a pouch the desired size results, in which criminals contrive to secrete jewels, money, etc., in such a way as to defy the most careful search, and without interfering in any way with speech or respiration. Upwards of twenty prisoners at Calcutta were found to be provided with this pouch formation. The resources of the professional malingerer are exceedingly varied, and testify to no small amount of cunning. The taking of internal irritants is very common, but would be inpatients very frequently overshoot the mark, and render recovery impossible. Castor-oil seeds, croton beans, and sundry other agents are employed with this object in view, and the medical officers of Indian prisons have to be continually on the lookout for artificially induced diseases, which baffle diagnosis and resist treatment. Army surgeons are not altogether unfamiliar with these tricks, but the British soldier is a mere child in such matters compared with the artful Hindoos.

REGULATION OF BREATHING IN SEASICKNESS. — Dr. Ivan A. Mitropolsky of Moscow recommends, on the ground of his own experience, the following simple method for preventing or aborting all symptoms of seasickness. According to *The Medical Record*, as soon as giddiness, nausea, etc., appear, the author shuts his eyes, and begins to make deep and slow inspirations and expirations. In a few moments (sometimes after three or four respiratory cycles) the symptoms disappear to yield to a comfortable subjective sensation. On their re-appearance, the same procedure is repeated again and again. If the recurrence be rather frequent, it is better to perform the procedure in a recumbent posture (with closed eyes). Since the time the author has begun to practise the method, he never yet suffered from vomiting when on board. In referring to this case in the *London Medical Recorder*, Dr. Idelson says that Dr. Mitropolsky seems to think that the means proposed by him is novel. Meanwhile, in the *British Medical Journal*, March 24, 1888, p. 676, he will find a very interesting note by Dr. J. J. Leiser, in which the writer says (1) that seasickness is caused by irregular and imperfect respiration, leading necessarily to an inadequate aëration of the patient's blood, which consequently becomes poisonous to his brain, and gives rise to sympathetic sickness; (2) that a system of regular, free breathing prevents sickness, or rapidly relieves it; and (3) that his experiments were successfully repeated by Drs. G. C. Stockman and C. W. C. Prentice, who, having selected ten suffering passengers, each seated himself with five of them, and "timed the breathing in the following manner: they (the doctors) raised the hand from the knee, indicating an inspiration, and down again for an expiration, thus timing the respirations to exactly twenty per minute. At the expiration of one hour the active symptoms in each case had entirely subsided." By this time the doctors had thoroughly educated their patients in the *modus operandi* of the cure. The cases continued to be permanent "cures" during the remainder of the voyage from Queenstown to the United States. The writers conclude by asserting that "the cure is infallible in all cases that persist in carrying it out."

HOT-AIR INHALATIONS IN CONSUMPTION. — From experiments in a number of cases, Dr. E. L. Trudeau of Saranac Lake, N.Y., concludes that (1) the therapeutic value of hot-air inhalations in phthisis is doubtful; and (2) the evidence obtained by the bacteriological study of the cases presented does not confirm the assumption that inhalations of heated air can either prevent the growth of the tubercle bacillus in the lungs of living individuals or diminish the virulence of this microbe when it has gained access to them.

THE BREEDING OF SINNERS. — The French Government hopes, apparently, by promoting marriages between male and female convicts, to bring back these stray sheep into the fold of morality and

good conduct. Arrangements have accordingly been made, says the *Hospital Gazette*, to facilitate these unions; but physiologists and pathologists must feel sundry qualms as to the expediency of such a course. The physical and moral degradation of many of these social waifs is distinctly hereditary; and a careful moral training (which is not provided for) would, at the most, only modify the tendencies which have brought them within the clutches of the criminal law. The son of a poet is not of necessity a poet, but the offspring of a bawd or an assassin is extremely likely to develop the same proclivities. If even one of the parties to the transaction were worthy of respect, some regeneration might be hoped for; but the association of two hopelessly abandoned bodies and souls is not calculated to improve matters in any respect whatever.

A CENTENARIAN SURGEON.—The *Patria* of Buenos Ayres affirms that there is now in Bolivia a surgeon, Luca Silva by name, whose age is not less than one hundred and twenty-nine years. He was born in Cochabamba in 1760, and devoted himself, after graduating in medicine, to the practice of surgery. He rendered important service to his country, when, after the famous manifesto of June 16, 1809, she entered on her struggle for independence. His treatment of the wounded, particularly his operations on the field of battle, won him high distinction. He also earned signal honor in the combatant ranks. This parallels the case of Dr. Holyoke of Salem, Mass., who practised his profession for upward of eighty years, his visit-books being still extant showing the record from beginning to end.

BACILLI ON A BALD HEAD.—Dr. Saymonne claims to have isolated a bacillus, called by him "bacillus crinivorax," which is the cause of alopecia. It is, he says, found only on the scalp of man, other hirsute parts of the body and also the fur of animals being free from it. The bacilli invade the hair-follicles, and make the hair very brittle, so that they break off to the skin. Then the roots themselves are attacked. If the microbes can be destroyed early in the disease, the vitality of the hairs may be preserved; but after the follicles are invaded, and all their structures injured, the baldness is incurable. The following is Dr. Saymonne's remedy to prevent baldness: Ten parts crude cod-liver oil, ten parts of the expressed juice of onions, and five parts of mucilage or the yolk of an egg, are thoroughly shaken together, and the mixture applied to the scalp, and well rubbed in, once a week. This, he asserts, will certainly bring back the hair if the roots are not already destroyed; but the application of the remedy, as *The Medical Record* well observes, must be very distressing to the patient's friends and neighbors.

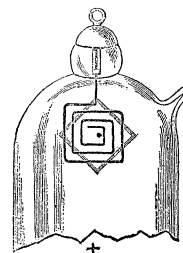
ELECTRICAL NEWS.

ELECTRIC LIGHTING FROM PRIMARY BATTERIES.—The chromic chloride primary batteries of Commandant Renard seem to be enjoying some success abroad. Thirty-six cells of this battery are deemed sufficient to run a 300-candle-power arc-lamp, and it is claimed that a 900-candle-power arc-lamp can be run from 42 of these cells. The cost per candle-power hour is estimated to be about one-fifth of a penny. A number of primary batteries have been introduced in this country for the purpose of electric lighting, and much money has been spent in patenting and placing them upon the market. As far as we know, they have never realized an approach to commercial success.

ST. LOUIS ELECTRICAL EXPOSITION.—This exposition is being held at St. Louis, and is certainly a very attractive feature in that city just now. A number of prominent exhibitors are represented. Among the miscellaneous exhibits are those of the Writing Telegraph Company of New York, the Electric Date and Time Stamp Company of St. Louis, the Graphophone-Phonograph Company of New York, and the American Waltham Watch Company of Boston, Mass., to say nothing of other companies manufacturing miscellaneous devices. The parent electric manufacturing companies are well represented, both as to *personnel* and machinery. Besides apparatus of a strictly electrical character, one finds leather belting, steam-engines, feed-water heaters, water-wheels, wire, etc., which all are day by day assuming a closer relation to the electric-lighting industry. One of the most interesting exhibits is the elec-

tric welding apparatus shown by the Thomson Electric Welding Company of Boston. It is not generally known just how complete and satisfactory this process is, and the company are taking advantage of the splendid opportunity now offered them in St. Louis to show and do all varieties of welding-work in the exposition building. Another device that seems to be appreciated by ladies and practical-minded husbands is the electric heater of the Burton Electric Heater Company of Richmond, Va. This heater is in actual use, cooking beefsteak, eggs, etc.; the inventor taking this opportunity of showing just what electricity is destined to do in the way of culinary and general heating attainment. Almost every thing and every body electrical are represented, notwithstanding which fact the exposition cannot be said to equal that in Chicago on the occasion of the annual meeting of the National Electric Light Association last February.

VOLATILIZATION OF METALS.—A correspondent of the *Revue Internationale de l'Electricité* writes, "We have received from M. Gaston Seguy, who is not only a clever glass-blower, but also an intelligent observer, two samples of tubes in which the volatilization of metals in a vacuum by the passing of the electric current has given rise to some curious phenomena, which we are unable to explain satisfactorily. We therefore confine ourselves to submitting to our readers the result of these experiments, hoping that perhaps one of them will be able to indicate on what theory we can



base our facts. A glass tube three centimetres in diameter is closed at the two extremities, and to each end is soldered an electrode of platinum or copper of the form shown in the adjoining figure. Through a nipple on the side of the tube a vacuum equal to that of the Geissler tubes is produced by means of a mercury-pump; then the current of a powerful induction-coil (three-tenths of a metre spark at least) is passed through. The metal is then volatilized at the negative pole, and is deposited on the sides of the glass, producing a black discoloration for platinum, and yellow for copper. The metallization of the sides of the tube is more rapid in proportion as the diameter is smaller; but in any case it produces this curious phenomenon, to which we wish to call attention: it does not take place at all on either side on that part of the tube placed directly opposite the plane of the electrode, as we can easily see by placing the tube before a sheet of white paper. The reservation thus obtained exactly reproduces the external form of the electrode; but what is still more curious is, that the angles of this outline do not correspond to the angles of the electrode, but come opposite the straight lines, as shown in the accompanying figure. These are phenomena similar to those observed by Crookes, Jamin, and Goltein; and we think, that, in order to facilitate an explanation of them, it is better not to pass them by in silence, but, on the contrary, to note them with all their peculiarities every time we observe them."

NOTES AND NEWS.

ON Friday evening, Sept. 6, the Nevada Academy of Sciences held its first working meeting, upon which occasion Gen. C. W. Irish read a very interesting paper on "The Air-Currents of Western Nevada." The officers of this new scientific society are, president, Gen. C. W. Irish, surveyor-general of Nevada; vice-president, C. W. Friend, director Nevada State Weather Service; secretary, Professor R. D. Jackson, State University; treasurer, J. Rankin; executive committee, the president, secretary, and the following,—Dr. LeRoy D. Brown, State University; Professor W. McN. Miller, State University; and E. M. Van Harlingen.