

HEALTH MATTERS.

The Influence of Cold on Pneumonic Infection.

DR. G. LIPARI of Palermo, in his recent experiments on the infectious nature of fibrinous pneumonia, essentially confirms what is known of Fraenkel's pneumonococcus, and has also succeeded in proving the influence of cold as a factor in the origin of fibrinous pneumonia. According to the *Lancet*, the endo-tracheal injection of pneumonic sputa or pleuritic exudation of animals which had died from pneumonococci gave a negative result; but when the author, before or after the endo-tracheal injection, exposed the animals to cold, the result was very different. Of eight animals so treated, six died with clearly established pneumonic infiltration. The author supposes that the cold paralyzes the ciliated epithelium of the bronchi, and at the same time causes the mucous membrane to swell, both of which pathological processes favor the descent of the infectious material into the alveoli. These experiments were doubtless undertaken with a view to harmonize the old and new teaching upon the origin of this prevalent disease.

A Long Fall.

"A remarkable fall of a miner down 100 metres of shaft (say, 333 feet) without being killed is recorded by M. Reumeaux in the *Bulletin de l'Industrie Minière*. Working with his brother in a gallery which issued on the shaft, he forgot the direction in which he was pushing a truck: so it went over, and he after it, falling into some mud with about three inches of water. As stated in *Nature*, he seems neither to have struck any of the wood *débris*, nor the sides of the shaft, and he showed no contusions when he was helped out by his brother after about ten minutes. He could not, however, recall any of his impressions during the fall. The velocity on reaching the bottom would be about 140 feet, and time of fall 4.12 seconds; but it is thought he must have taken longer. It appears strange that he should have escaped simple suffocation and loss of consciousness during a time sufficient for the water to have drowned him.

Tight Collars and Vision.

The influence of tight collars in impeding the circulation in the head by pressing on the jugular veins is well-known to military surgeons with the troops in India, says the *London Lancet*; but the bad effects of such pressure in cooler climates have been demonstrated by the observations of Professor Förster of Breslau, who states that three hundred cases have come under his notice in which the eyesight has been affected by the disturbance of the circulation caused by wearing collars that were too small. A large number of these cases were probably subjects of myopia.

The Treatment of Phthisis by Carbonic Acid.

It is said that lime-burners enjoy a certain degree of immunity from phthisis, not because they take in more carbonic acid, but because its diffusion when expired is impeded. Again, the course of phthisis is often seen to be arrested in pregnancy, and this has been ascribed to the increased amount of carbonic acid in the maternal blood. Chronic heart-disease, by causing chronic hyperæmia of the lungs, also affords a kind of immunity against phthisis. Lastly, in emphysema there is also permanent dyspnoea in more or less degree, and the blood is overcharged with carbonic acid. Acting on these ideas, Dr. Hugo Weber (*Berliner klinische Wochenschrift*) proposes to administer carbonic acid by the stomach, in the form of effervescing powders. Ten cases are reported in which decided improvement was noted after this treatment, which certainly merits further trial, especially as it can be carried out at the patients' own homes. According to Ebstein's theory of diabetes, the increased proneness to phthisis which that disease entails is due to the defective development of carbonic acid, this being not only the final product of tissue oxidation, but a body which exerts a regulatory restraining influence on the destruction of glycogen and albuminoids. Bergeon, Dujardin-Beaumetz, and others, have used in phthisis gaseous injections

per rectum of hydrofluoric acid, copiously diluted with carbonic acid, and the good results they met with are claimed by Dr. Weber as due to the diluent.

BOOK-REVIEWS.

Numbers Universalized: An Advanced Algebra. Part II. By DAVID M. SENSENIG. New York, Appleton. 12^o.

THE volume forming the first part of this work was noticed in these columns last August. The work as a whole embraces all algebraic subjects usually taught in the preparatory and scientific schools and colleges of this country. The object in dividing the work into two parts is to accommodate all kinds and grades of schools sufficiently advanced to adopt its use. The work may be had bound either in one or two volumes, as may seem desirable to the teacher.

AMONG THE PUBLISHERS.

THE three latest issues of the *Modern Science Essayist*, Nos. 22, 23, and 24, are devoted to "The Evolution of the State," by John A. Taylor; "The Evolution of Law," by Rufus Sheldon; and "Evolution of Medical Science," by Robert G. Eccles, M.D.

—Two useful and convenient little pocket volumes just published by E. & F. N. Spon of London and New York are "Tables and Memoranda for Engineers," by J. T. Hurst (tenth edition), and "Practical Electrical Notes and Definitions," by W. Perren Maycock. The first-named volume, which is of vest-pocket size, contains memoranda for excavators, brick-layers, masons, carpenters, plasterers, iron-workers, plumbers, painters and glaziers, and others, besides tables on every subject connected with engineering. The other volume is intended to be a *vade-mecum* for all persons even remotely interested in electrical engineering. It treats, briefly but clearly, of wires and lightning-conductors; electrical circuits, units, and Ohm's law; magnets, batteries, bells, indicators, switches, and alarms; electric light and dynamos; the telegraph and telephone; the electrical transmission of power, electric motors, and telerage. It also contains rules and regulations to be observed in the fitting-up of electrical installations, all diagrams necessary to make its subjects clear, and is provided with a very full index.

—"Giordano Bruno: Philosopher and Martyr," is the title of a pamphlet containing two addresses before the Contemporary Club of Philadelphia, and published by David McKay of that city. The first is by Daniel G. Brinton, and treats more particularly of Bruno's life, martyrdom, and character, though with some notice also of his philosophy. The second, by Thomas Davidson, is devoted almost exclusively to Bruno's doctrines, their nature, their history, and their present significance. Both authors show too strong a tendency to read their own opinions into Bruno's works, or at least to find anticipations of them even in his casual utterances, — a common fault in philosophical writers, at the present day, when treating of earlier thinkers. Bruno's philosophy is too vague and mystical to be identified with any of those now prevalent, though it has points of contact with several of them. Besides, what is most interesting in Bruno is not his philosophy, nor yet his personal character, which was not of the best, but his spirit of independent thought and his heroic resistance to ecclesiastical tyranny. For these he will be remembered and honored, whatever the defects of his character or his creed.

—The leading article in *Garden and Forest* last week is on the sugar-maple, and it is illustrated by a striking picture of one of these trees. The number also contains an illustration of *Syringa Pekinensis* (the so-called weeping lilac), with a description of this new shrub; while Dr. Maxwell T. Masters, the distinguished editor of the *Gardeners' Chronicle*, London, writes instructively on sports, and Professor Budd of the Iowa Agricultural College discusses hardy trees and shrubs. "Chrysanthemums," "Plants for Easter Decoration," "The Spring