SCIENCE

FRIDAY, FEBRUARY 3, 1888.

THE COMMISSIONERS OF PUBLIC SCHOOLS of Baltimore, Md., have taken the initiative in the introduction into the public schools of that city of a series of reforms which, if adopted, will be of great benefit to the pupils. This action is the more noteworthy from having originated in the school board, the proposition coming from its committee on health, and not being forced upon it by the board of health or public opinion. It is greatly to be hoped that the mayor and common council of the city will give the necessary power and money to carry these resolutions into effect. After a preamble to the effect that sanitarians and teachers have proven that children attending school are frequently subjected to influences prejudicial to health, which often leave their effects upon the constitution for life, and that it has been demonstrated, that, by expert sanitary supervision of schoolhouses and of the pupils themselves, many of these injurious influences can be mitigated and removed, the resolutions are, that the mayor and city council be requested to authorize the commissioners of public schools to appoint an officer, who shall be a physician and expert in sanitary science, to be known as the sanitary superintendent of public schools, whose duty shall be, 1st, to carefully examine all plans submitted for the construction of new schoolhouses, and suggest such modifications as may be necessary from a sanitary point of view; 2d, to advise with the commissioners with reference to necessary alterations in schoolbuildings to improve their hygienic condition; 3d, to examine all text-books before adoption, in order that type, printing, or paper injurious to the eyesight of pupils may be avoided in selecting such books; 4th, to satisfy himself, by personal examination if necessary, that all pupils admitted to the schools have been properly vaccinated or are otherwise protected against small-pox; 5th, to take such other measures, in conjunction with the health commissioner of the city, as may be necessary to prevent the spread of contagious diseases in, or through the medium of, the public schools; 6th, to examine annually the eyesight of all children attending the public schools, and keep an accurate record of such examinations; 7th, to report annually, or as often as may be required by the commissioners, upon the sanitary condition of the schools, and of the pupils attending them, and to advise the commissioners upon sanitary questions connected with schools whenever required; 8th, to give instruction, by lectures or otherwise, to the teachers in the schools upon the elementary principles of school hygiene.

ASSISTANT CHARLES A. SCHOTT, assistant in charge of the computing division of the Coast and Geodetic Survey, has addressed a letter to the superintendent of that bureau which states that the discovery of records of the magnetic declination, A.D. 1714, off the coast of Mexico, by Assistant G. Davidson, and transmitted by him to this office, Dec. 7, 1887, proved to be a matter of much importance by greatly increasing our knowledge of the secular variation of the declination. By means of these observations we are able to improve materially the expressions for San Blas and Magdalena Bay, to add the new station Cape San Lucas, and to make their influence felt as far north as San Diego and Santa Barbara. It is the range which is greatly improved; besides, the epoch of maximum declination is shifted in the right direction. Apart from the fact that a region of west declination is here for the first time observationally indicated on the Pacific coast, the power of the newly recovered declinations is due to the circumstance, that, as far as known, they cover a time when the needle was in or near a phase the opposite of the present one. For want of early observations, these previously collected for San Diego and Santa Barbara, Cal., were extremely difficult to handle; and, while it was not an easy matter to establish new expressions for these stations, their correctness, or rather applicability over the whole period of time the observations cover, is quite re-assuring. He points out the desirability of new observations (either using funds yet available before July next, or providing funds to be used after that date) at San Diego, Santa Barbara, and Monterey, and states that these stations have received no attention for seven years. These observations are demanded to give greater precision to the computed variations on our charts.

ASA GRAY.

PROF. ASA GRAY died at his home in the Botanic Gardens, Cambridge, Mass., on Monday evening, Jan. 30. He had been unconscious since last Thursday, and helpless for more than a month.

Dr. Gray was born at Paris, N.Y., Nov. 18, 1810. He took the degree of M.D. at Fairfield Medical School, in 1831, but never practised medicine. After a short time spent in teaching some branches of natural history in a private school in Utica, he was induced, through correspondence with Dr. Torrey of New York, a professor of chemistry but more widely known as a botanist, to accept, in 1833, a position in his laboratory, and a little later that of curator in the Lyceum of Natural History. By Dr. Torrey's side, he began a career of ceaseless botanical activity.

His botanical publications were begun with a description of certain sedges and newly discovered plants of north-western New York. In 1835 appeared 'North-American Grasses and Sedges,' and in the following year 'The Elements of Botany.' This last was more than a mere compilation of the materials available at the time, and gave a good account of what was known of the principles of morphology, histology, vegetable physiology, and of the department in which Mr. Gray was more interested, botanical classification. Although the young writer ventured to differ from the authorities of the day, he was happy in after years in finding that these expressions of his youth needed but little change. His 'Botanical Text-Book' was published in 1842; and with this we may refer to the educational books written by him, which comprise a long list: 'How Plants Grow' (1858), 'How Plants Behave' (1875), 'The Lessons' (1857), a new edition of 'The Elements' (1887), and the 'Text-Book,' issued during the past year, which is a revised edition of 'The Lessons.' Besides these, we may mention 'The Manual of the Botany of the Northern United States' (1848), of which there were five editions, also 'Field, Forest, and Garden Botany' (1868). His 'Manual' is probably the best known, as it must have been in the hands of every American botanist since the time of its publication. The 'Genera of North America' he began in 1848, but of this but two volumes have been published, which, even in their unfinished condition, have been of great use to botanical teachers. The great work of his life is the great 'Synoptical Flora,' which had its beginning in Torrey and Gray's 'Flora' forty years ago. As far as published, it consists of a volume of nine hundred and seventy-four pages on the gamopetalous orders, but there are other portions which have been published in the Proceedings of the American Academy. It would be impossible to enumerate the numerous memoirs and papers which have come from his pen, many of which have been tributary to the 'Flora.' Dr. Gray regarded as his most important minor work 'The Relations of the Japanese Flora to those of North America,' published in 1859. This was based on the study of plants collected by Wright, and he believed this paper gave him his reputation to a large extent in Europe.