sarily hypothetical explanation of the relation between memory and nerve-cell, we need not enter. The main result connects the easiness of forgetting recent impressions with instability of nerve-cell, and isolation from the cell groups; while the older, more deeply impressed and integrated experiences remain.

A corroboration of this result is found in the fact that in the recovery there is a stage in which the patient remembers that a thing happened, but not where or how; not even, perhaps, whether it was dreamed, or really experienced. The associations that localize the event are not made, although the impression made by the event is there. Only in the final stages of recovery are the associations and the facts remembered.

NOTES AND NEWS.

A STALACTITE cave has been discovered in Ascheloh, near Halle, in Westphalia. It is reported to be more than 100 metres long.

— A series of questions on the effect of London fogs on cultivated plants has been issued by the scientific committee of the Royal Horticultural Society. The experience of the current season only is to be utilized.

— A hippopotamus was born in the Central Park menagerie, this city, on the night of Dec. 1; and this is said to be the first instance of an event of this kind in this country. Unfortunately it died on the 6th of pneumonia, as we learn from the *Boston Medical and Surgical Journal.*

— The Gilbert Club, to which we referred last week, was formally founded on Thursday, Nov. 28. The following officers were appointed at the first general meeting: president, Sir William Thomson; vice-presidents: Lord Rayleigh, Professor D. E. Hughes, Professor Reinold, Mr. Jonathan Hutchinson (president of the Royal College of Surgeons), Dr. B. W. Richardson, and Mr. H. Laver of Colchester. Mr. Latimer Clark was elected treasurer; and Mr. Conrad Cooke, Professor R. Meldola, and Professor S. P. Thompson, honorary secretaries. The resolution finally adopted by the meeting was, according to *Nature*, "That the objects of the Gilbert Club be as follows: (1) to produce and issue an English translation of 'De Magnete' in the manner of the folio edition of 1600; (2) to arrange hereafter for the tercentenary celebration of the publication of 'De Magnete' in the year 1900; (3) to promote inquiries into the personal history, life, works, and writings of Dr. Gilbert; (4) to have power, after the completion of the English edition of 'De Magnete,' to undertake the reproduction of other early works on electricity and magnetism, provided at such date a majority of the members of the club so desire." At the time of the inaugural meeting eighty-seven members had joined the club.

— The chief signal officer has adopted a signal known as the "information signal," and forming one of the system of "storm, cautionary, and wind-direction signals." The "information signal" consists of a yellow pennant, of the same dimensions as the red and the white pennants (wind-direction signals), and, when displayed, indicates that the local observer has received information from the central office of a storm covering a limited area, dangerous only for vessels about to sail to certain ports. The signal will serve as a notification to ship-masters that the necessary information will be given them upon application to the local observer. The use of this signal began Dec. 1. It is believed that the display of the "information signal" will in many instances obviate the necessity for the display of the "cautionary signal" (yellow flag with white centre). The signal at night for indicating westerly winds is now a white light above a red light.

— Lieut.-Commander Charles H. Stockton, U.S.N., commanding the United States steamship "Thetis," reports to the United States Hydrographic Office that during the past summer, while on the north and north-west coasts of Alaska, the "Thetis" set adrift numerous drift floats. These floats are made of wood, about 2 feet long and 9½ inches thick, with the name of the ship, date, and the words "for drift," cut upon the face. In a cavity at one end of the float, plugged with soft wood, there is a copper cylinder containing a letter requesting the finder to inform the Hydrographic Office, Washington, D.C., the nearest United States consul, or the commanding officer of the "Thetis," the time and place where the float was found. These floats are intended to show the direction and strength of the currents off the coast of Alaska, and any information obtained from them will be of value to navigation. Masters of vessels in Alaskan waters, or residents on the coast of Alaska, finding any of these floats, are especially requested to comply with the request contained in each copper cylinder.

— A course of public lectures was begun before the New York Academy of Sciences, Madison Avenue and 49th Street, on Monday evening, Dec. 2, at eight o'clock, to continue until May 19, 1890. The following is a list of the lecturers, together with the subjects and dates of the lectures: Dec. 2, "The Raiyan-Mœris: the Irrigation of Ancient and Modern Egypt" (illustrated by the lantern), by Mr. F. Cope Whitehouse of New York; Dec. 16, "Strategic Features of the Gulf of Mexico and the Caribbean Sea" (illustrated by maps), by Capt. A. T. Mahan, U.S.A.; Jan. 20, 1890, "The Ice Age in North America, and the Antiquity of Man" (illustrated by the lantern), by Professor G. Frederick Wright, Oberlin College, Ohio; Feb. 17, "Four Weeks in the Desert of Mount Sinai" (illustrated by the lantern), by Dr. H. Carrington Bolton of New York; March 17, "Nebulæ and the Nebular Hypothesis" (illustrated by the lantern), by Professor Charles A. Young, Princeton, N.J.; March 31, "Volts and Ampères, and What they mean" (to be held in the chemical lecture-room, School of Mines; illustrated by electrical apparatus and experiments), by Professor Charles F. Chandler, Columbia College; April 14, "Methods of Research in Bacteriology" (illustrated by photo-micrographs of bacteria), by Major George M. Sternberg, M.D.; April 28, "Glimpses of the Arctic Regions" (illustrated by the lantern), by Mr. William Bradford of New York; May 19, "Grand Cañon of the Colorado" (illustrated by the lantern), by Professor Rossiter W. Raymond of Brooklyn.

— The question of a system of improved public roads, to which we refer elsewhere, is one so closely related to every material interest of the State as to place it properly among the most important questions of public economy. The science of road making and maintaining, though neither difficult nor abstruse, is nevertheless based on principles so well established, and so unvarying in their operation, as to render their thorough comprehension an essential to success in securing and maintaining public roads at once efficient and economical, whatever the administrative system by which they are constructed and controlled. In other countries the superintendence of public highways is recognized as an important and responsible duty, and is usually assigned to specially trained, expert government engineers; while in the United States, where the greater mileage makes the economy, if not the efficiency, of roads even more important than abroad, the States depend for this responsible service on private citizens, locally and temporarily appointed to the duty, without providing for them the technical instruction and training so essential to success under any system. To offer such as desire it an opportunity to make good, in part, this defect, the Engineering Department of Vanderbilt University, Nashville, Tenn., continues its offer of former years to admit free of charge, to a class in road engineering, one principal or deputy highway official from each county in Tennessee. The appointment shall be made by the chairman of the county court, on or before Jan. 1, 1890, and must set forth that the candidate is in a position to be of benefit to the public road-system of the county wherein he resides. If in a county no applicant apply for appointment before Jan. 1, the chairman of the county court shall, until Feb. 1, 1890, have the privilege of appointing one similarly qualified applicant from any other county of any State. The course of instruction will extend from Feb. 1 till April 1, and will consist of lectures and work on the economical location of highways to conform to conditions of topography and traffic; principles of construction of new and reconstruction of old roads, and of maintenance *vs.* repairs; methods of drainage; simple highway structures, retaining walls, drains, culverts, simple bridges; practice in field-sketching, simple platting and draughting, instrumental location, and computing estimates of cost; and study of systems of highway administration.