

at 1:15 P.M., when a rise began, giving 60° again at 3 P.M.

WE learn from *Symons's Meteorological Magazine* (November, 1905) of the establishment of a lectureship on meteorology in the University of Manchester. Mr. George C. Simpson, who occupies this position, is the first university lecturer on meteorology in Great Britain.

R. DE C. WARD.

THE NEW ENGLAND INTERCOLLEGIATE  
GEOLOGICAL EXCURSION, 1905. GEOL-  
OGY OF THE NANTASKET AREA.

THE New England Intercollegiate Geological Excursion for the year 1905 was held at Boston, on Saturday, October 28, under the auspices of the Massachusetts Institute of Technology. Professor T. A. Jaggar, Jr., was in charge, Professors J. B. Woodworth, of Harvard, and D. W. Johnson, of the institute, cooperating in the work.

On Friday evening, October 27, an informal conference was held in the library of the department of geology at the institute, the meeting being well attended. Professor Jaggar outlined the plans for the following day, and presented a brief account of the geological history of the Boston Basin, together with a more detailed description of the lava flows, dykes and sediments of the Nantasket area. Professor Johnson followed with a discussion of the recent changes which have taken place in the drumlins and beaches of the harbor, particularly those which have affected the development of the present Nantasket Beach.

The party, consisting of forty-five teachers and students, left South Station at 8:43 Saturday morning, going by train to Point Allerton at the northern end of the beach. After noting the different stages of marine erosion shown by the remnants of the Allerton drumlins, the party walked southward along the old abandoned beaches which were formed a considerable distance west of the present shore. The consecutive stages in the development of the present form of Nantasket could be made out from the succession of beaches with intervening 'slashes,' converging at the north to

pass a little south of Point Allerton Hill (drumlin), and indicating a former seaward extension of the beaches; and converging at the south to join the northern side of the Strawberry Hill drumlin. It was seen that the smaller waves from the protected harbor are now cutting into these older beaches from the west, destroying the work accomplished by the larger Atlantic waves in a former time, and building out to the northward a much smaller beach made up largely of the material eroded from the older beaches. The presence of a peculiar protuberance in the outline of the western shore was shown to be due to the former existence of a drumlin at that place, the drumlin having been removed largely by marine action, but partly by man. The splendid example of an abandoned marine cliff on the southeast side of the Strawberry Hill drumlin, the prominent crescentic cliff in the next drumlin well to the south, and numerous minor 'nips' in the several drumlins, indicate successive positions of the eastern shoreline as the different beaches were added without any apparent change in relative elevation of the land, and point to the probable existence of former drumlins which profoundly influenced the development of the beaches, but which have since been destroyed by the waves. The general features of this succession were called to the writer's attention by Professor Davis, of Harvard, and the detailed study of the region forms the subject of a paper which will be presented at a future time.

After the study of the old beaches and abandoned marine cliffs the party divided into two sections, one division under the direction of Professor Jaggar, the other under that of Professor Woodworth. The detailed structure of the Nantasket ledges of south-dipping conglomerates, slates, lavas, breccias and sandstones were pointed out, and the origin of the most interesting features discussed. Intersecting dykes of diabase, sometimes containing inclusions of the underlying granite, sometimes almost entirely removed from between the hard walls of country rock by the action of the waves, afforded many points of interest. The 'volcanic bombs' in the melaphyr, and the extensive beds of conglomerate contemporane-

ous with the lavas and tuffs, make an exceptionally complete ancient volcanic section. The fault phenomena of the region were considered, especially the effect of the major east-west faults in bringing the underlying granite up in contact with the sedimentary and volcanic series, and in preserving the higher members of the volcanic series.

Dinner was provided at one of the hotels near the beach, through the courtesy of the departments of geology of Harvard and the institute. At 3:40 in the afternoon the steamer was taken at the Nantasket pier, the boat ride up the harbor giving a good opportunity to see the cliffed drumlins which constitute the greater part of the harbor islands.

The largest delegation to the excursion came from Williams, Professor Cleland bringing a party of fifteen of his students. Among the other institutions represented were Mt. Holyoke, Smith, Radcliffe, Yale, Brown, Tufts, Boston College, Harvard and the Institute of Technology.

D. W. J.

#### *THE CARTWRIGHT LECTURES AND BARON TAKAKI.*

THE Cartwright lectures of the Alumni Association of the College of Physicians and Surgeons of New York will be given on Thursday, January 25, Monday, January 29, and Friday, February 2, by Baron Takaki, on 'Military and Naval Sanitation, Experiences drawn from the late Japan-Russia War.'

Dr. Takaki belongs to one of the Samurai families of the Satsuma clan, as do his contemporaries, Generals Oyama, Kuroki, Nogi and Nodzu and Admirals Togo and Kamura. During his youth he was sent by his government to study medicine in England, where he graduated with honor from St. Thomas' Hospital School, studied the sanitary system of the British Navy, and passed examinations for the degrees of F.R.C.S. and F.R.C.P.

On his return to his native country he directed his chief attention to the reformation of the sanitary and medical systems of the newly born navy of Japan. It was not only reorganization that he accomplished, but the creation of an entire medical equipment and medical sanitary service for the Japanese

navy. He was rapidly promoted to the rank of surgeon general of the navy, which position he held until the time of the Japan-China war. As a recognition of his great services rendered to the emperor and his country he was created a baron after the conclusion of that war. At present he is in the naval reserve.

During his active service in the navy, Baron Takaki initiated and carried out certain fundamental changes in the dietary and sanitary regulation of the navy which resulted in the almost total suppression of beriberi, which, up to that time, had seriously impaired the efficiency of the service, affecting annually almost one quarter of the navy's personnel. Baron Takaki has also been president of the Naval Academy of Japan, president of the Tokyo Charity Hospital, councillor of the Association of Sanitary Improvement of Japan, and has held other important positions. He has been active in spreading the principles of the Red Cross Society in Japan, and it is to his efforts that the large number of Red Cross members in that country is chiefly due.

Baron Takaki has received the honorary degree of doctor of medicine of the Japanese government, a degree issued only by the Department of Education, and not the same as the degree of M.D. conferred on the graduates of the university. He is a member of the house of peers of the parliament of Japan, having been directly nominated by the emperor.

#### *THE SIXTH INTERNATIONAL CONGRESS OF APPLIED CHEMISTRY.*

THE Sixth International Congress of Applied Chemistry will assemble at Rome, on April 16, Easter Monday, 1906. It is important that delegates who expect to be in time should sail not later than April 1.

The Italian steamship line, La Veloce, 29 Wall Street, New York, offers first-class passage from \$55 up to Genoa or Naples. The agent indicates that a party of delegates may secure superior quarters at minimum rates if sailing together.

The Italian Royal Steamship Co., 11 Broad-