

period it might fairly enough be fixed at two years. In this way, a five years' course, after leaving the high school, could be worked out leading to a technical degree, which might then in one more year lead to a doctor's degree. The present situation is one of unstable equilibrium. Our ultimate hope lies in the development of the public high school into an effective tory instruction.

It is interesting to note how many men come up at Charlottenburg for their final examinations and the diploma and for the doctor's degree during the year. The attendance of matriculated, *i. e.*, regular students at the Hochschule during the year ending June 30, 1911, was 2,060 (average for the two semesters). Of these, 336 passed successfully the examinations for the degree of Certificated Engineer—roughly one in six of the total number. Forty-two took the doctor's degree in engineering, *i. e.*, one in fifty.

During the week I spent in a careful study of the Hochschule and its workings I was greatly impressed by the emphasis laid on training the men to independent methods of work, and by the manifest desire to turn out, not highly trained artisans or mechanics, but independent thinkers within the field of technical pursuits—men who because of their mental development will be able to lead in whatever field they may enter. EDMUND J. JAMES

CHARLOTTENBURG-BERLIN, GERMANY,
January 1, 1912

WILLIAM EMERSON DAMON

THE death of William Emerson Damon on December 1, in Windsor, Vermont, at the age of seventy-three, recalls to his friends memories of his early days, when his enthusiastic devotion to natural history studies in general, and more especially to ichthyology and pisciculture, caused him to become the leading spirit in the establishment of New

York's first aquarium. This first venture was a department of Barnum's old Ann Street museum. It was due to Mr. Damon's persuasion that the irrepressible showman was induced to undertake this enterprise; however, unexpected difficulties were encountered in securing specimens from the South Atlantic, but few of the fish being alive when they reached New York. Finally a special craft was chartered and placed under Mr. Damon's immediate control.

This was in 1863, during our Civil War, and some very interesting details regarding this expedition have been furnished by Professor Albert S. Bickmore. Barnum, who had just acquired the "Aquarial Gardens" in Boston, wrote to Professor Agassiz, of Harvard, that if the latter had an assistant whom he would like to send along to collect specimens for the Museum of Comparative Zoology in Cambridge, all facilities would be accorded to him. This offer was accepted by Agassiz, who selected Professor Bickmore as his representative. The little fishing-smack chartered for the trip was given the high-sounding name *Pacific*. Its equipment, however, was of the simplest, not even a chronometer being on board, so that when, after coasting along until Cape Hatteras was reached, the course was laid due east, and the ship passed out of sight of land, there was no means of determining its exact position. Fortunately, half-way toward Bermuda, an East-Indiaman was met, and the adventurous seamen were able to learn their precise latitude and longitude.

On the arrival of the little craft in Bermuda, Professor Bickmore writes:

As we came near Port Hamilton, the principal harbor, a number of native boats put off to board us, for what purpose we were at a loss to imagine, until one more skilfully managed than the others came alongside, and its black crew offered to aid us as agents. "What for?" we asked; to which came the rejoinder: "Why, when we saw how you could sail in a strong breeze, we felt sure you were a 'blockade-runner' loaded with tobacco."

When the entirely peaceful intentions of the newcomers were made plain, the authorities facilitated their operations and some 600

fine specimens were secured, and safely brought to New York. The beautiful Bermuda Islands were then but little known to New-Yorkers and the enthusiastic account of their charms given by both Mr. Damon and Professor Bickmore undoubtedly helped much to make that region popular with New-Yorkers and Bostonians.

To this first aquarium venture succeeded another, which was housed for some years in a building on the site now occupied by the Herald Square Theatre. A most appropriate banquet celebrated the opening of this aquarium, the menu of fifty-three courses consisting exclusively of fish. With this foundation Mr. Damon was largely interested and when, finally, the present well-equipped aquarium in Battery Park was established his advice and council were eagerly sought and he was given a deciding voice in the choice of the director.

There can be no doubt that if Mr. Damon could have found an opening enabling him to devote all his time and energies to natural history he would have earned a world-wide reputation in this field, but a leading jewelry house would have lacked his valuable services as part owner and credit-man, services extending for forty years. Nevertheless, his interest in these studies was always great and he found time to make many contributions to the progress of this branch of science. His book entitled "Ocean Wonders" records a number of very interesting experiences gained during his early researches. During his business career he was exceedingly fond of making pedestrian excursions in the environs of New York City, and thus acquired an exceptionally thorough knowledge of the formation of the land in this territory.

His lively interest in scientific pursuits and the recognition accorded him in the scientific world is shown by his membership in the New York Microscopical Society, the Royal Microscopical Society of London, the New York Mycological Club, the Scientific Alliance of New York, the New York Naturalists' Club and the New York Zoological Society. He

was also a member of the New England Society. He is survived by a widow.

GEORGE F. KUNZ

MEMORIAL TO MRS. ELLEN H. RICHARDS

THE third annual meeting and luncheon of the Home Economics Association of Greater New York, held on Saturday at the National Arts Club in that city, took the form of a memorial to Mrs. Ellen H. Richards, late of the Massachusetts Institute of Technology and president of the Lake Placid Conference of Home Economics and the American Home Economics Association. The literary program at the luncheon was in charge of Professor Helen Kinne, of the School of Household Arts, Teachers College, the president of the New York association. At the last annual meeting Mrs. Richards was present as the guest of honor and gave an address on the "Conservation of Human Resources." Miss Kinne in introducing one of the speakers, said that probably there was no member of the club whose life had not been touched and quickened by Mrs. Richards. For herself, she said, she had two mental pictures of Mrs. Richards, one in her laboratory at the Institute of Technology, and the other in her home with the flowers.

The first speaker was Miss Margaret Maltby, professor of physics in Barnard College. She told of her first contact with Mrs. Richards while she studied at the Institute in 1887 and of the constant thoughtfulness of the only woman teacher there for the girl students. She said:

Mrs. Richards in an unusual degree combined the qualities of the prophet, the scientist and the practical optimist. She was constantly anticipating lines along which advance would be made. Her imagination was based on a solid foundation of scientific fact and her prognostications were seldom wrong. Her interests were broad and were not confined to any one science. This was shown by her study of medical books, by her use of the weather charts which came daily to her home, and by her activities in many scientific societies. With all this there was a sense of proportion, an instinct for what was feasible, a practical method of attack, a wonderful power of analysis, which was