"No one, I think, can ride over those thirty miles and observe closely without being convinced that these mounds are wholly the result of surface-erosion, acting under peculiar conditions. The conditions are a *treeless country* and a *drift soil* consisting of two layers, a fine and more movable one above and a coarser and less movable one below." . . . "The necessary condition, I believe, is the greater movableness of the surface soil compared with the sub-soil." . . . "Surface erosion cuts through the finer superficial layer into the pebble layer beneath, leaving, however, portions of the superficial layer as mounds."

"Similar less conspicuous mounds, under the name of 'Hog-wallows,' are well known to exist over wide areas in middle and southern California."

The words in italics are so in the original.

ALFRED R. WALLACE

SCIENCE AT CAMBRIDGE, MASS.

THERE is marked activity in all scientific pursuits in and about Harvard University. The Agassiz Museum has at last had its management fully turned over to the University, the transfer being effected by permission from the State Legislature. At present the estimated worth of the property is $322,000; the land and buildings being valued at $100,000, and the collections at $60,000; the rest being trust funds. By the transfer, Harvard will have the use of the collections for educational purposes, and the Peabody Museum of Archæology will erect an edifice connected in plan with the Agassiz Museum. The Peabody trust provides for a Professorship of Anthropology, as well as for collections and a building. The Agassiz Museum is arranged so as to display types of the whole animal kingdom in their natural classification. Great facilities are already furnished to students and specialists, and these facilities will now be further increased. The force employed in the Museum is sufficient not only for the care of the specimens, but also to aid in new research.

There is a steady increase in the number of Harvard students in the scientific courses—physics, chemistry, natural history, botany, anatomy, and physiology. Text-books are little used in these courses; students are required to handle the things themselves, in the laboratories. "Summer schools" are conducted from June to September, in which teachers from the public schools become pupils. Chemistry has been taught in these summer schools for three years, geology and botany for two years, and zoology will be undertaken this year under Assistant-Professor Walter Faxon. Prof. Shaler's Summer School of Geology is the most widely-known of these enterprises. This year it will be conducted with headquarters successively in the Connecticut Valley, the Berkshire Hills of Massachusetts, and the Helderberg or the Catskill Mountains of New York. The class will be limited to fifty members. After the school closes, a trip will be made by those who can join in it to Cleveland, Nashville, Louisville, and the Mammoth Cave. Besides the Summer Schools, there is also organised a series of four courses of lectures to teachers, which include laboratory work. These are given on Saturdays from January to May. They embrace geology, physics, botany, and zoology, and have the services of Professors Shaler, Trowbridge, Goodale, and McCrady, and some assistant-professors of special repute. There are about forty members to a class.

The Boston Society of Natural History sustains a similar series of course-lectures to teachers during the winter months. The instruction is practical, as far as it can be made so by the illustrative specimens in the Society's collection. Prof. Shaler is also organising a system to furnish teachers with selected specimens and appropriate text-books and descriptions. It is expected that this new system will be the means of inducing teachers in the public schools to make further collections for their own use and to instruct their scholars. The Harvard Natural History Society is very actively engaged in promoting scientific education, especially among beginners in such studies. Prizes are offered for the best essays of the students upon their actual observations in natural history and botany. A free course of six scientific lectures is furnished by this Society, the lecturers being eminent specialists in the University. Two scientific associations at Cambridge are also doing active work—the Nuttall Ornithological and the Cambridge Entomological Clubs. The latter is the larger of the two, and contains many members of eminence. It publishes a periodical, the *Psyche*. The Nuttall Club publishes a quarterly magazine, the *Bulletin*, edited by Prof. J. A. Allen. This list of scientific enterprises in and around Cambridge, Mass., is by no means exhaustive, but it will give a fair notion of the activity with which they are promoted at the present time. It is hoped that the present year will be marked by even greater effort than its predecessors.

NATURAL HISTORY AND GEOLOGICAL RESULTS OF THE ARCTIC EXPEDITION

THE public will, we are sure, be glad to hear that though the Admiralty have declined to undertake or assist in the publication of the results of the late British Arctic Expedition, beyond matters purely hydrographical, the natural history and geological collections brought back by the expedition are being rapidly arranged and named. The whole of the numerous collection of fossils from the Silurian (Wenlock), Devonian, Carboniferous Limestone, and Miocene rocks of the coasts of the circumpolar sea have been examined by Mr. Etheridge, the palæontologist of the Geological Survey, and found to contain several new and interesting forms, which will be described in his forthcoming paper, at the Geological Society, on the Arctic fossils brought back by Capt. Feilden, R.A., and which will accompany a paper by that officer on the rocks and general geological facts observed by him in the Arctic area.

We especially rejoice to find that Capt. Feilden has brought back a large series of notes and portions of rocks glacially scratched and scored, scratched boulders and pebbles, which will throw much light upon the manner in which this country was glaciated during the Drift period. It will be seen that stones on a headland coast can receive the greatest possible amount of glaciation by the mere impinging of floe-bergs, driven by violent gales and currents, on the breaking up of the pack. On the much-vexed question of the parallel roads of Glen Roy, light also may possibly be thrown, for terraces fringe nearly every valley flanking the Arctic coast, formed by fresh water, dammed by pack ice. These rest on marine beds of boulder clay, with sea shells, which rise to heights of more than 500 feet above the present sea-level, and prove the recent elevation of the land, which movement is still going on; the marine beds outside the ice-foot fringing the coast of to-day will doubtless ere long be elevated above the water-level, and be covered with the latest fluviatile terrace behind the pack.

To those accustomed to the magnificent results brought to England by perfectly equipped expeditions like that of the *Challenger*, proceeding leisurely through seas teeming with the luxuriance of tropical life, the collections brought back by the Arctic Expedition may appear small; but we feel sure when the specimens are fully catalogued, and the difficulty realised of carrying heavy specimens of rocks and fossils when up to the arms in snow, and of securing insects with fingers numbed by a temperature of 50° below freezing, it will be felt that the naturalists of this expedition have made excellent use of their opportunities. We may mention that the extensive series of Miocene plants associated with the thirty-feet coal-bed of Lady Franklin's inlet will be described by Prof. O. Heer, the insects (recent) by Mr. McLachlan, and the fishes by Dr. Günther, of the British Museum.