

members of the club in their own homes, and by other housekeepers, and have also been adopted as the basis of a course in sanitary science offered by the Society to Encourage Studies at Home. The editors of the manual are Ellen H. Richards and Marion Talbot.

In the introductory chapter the editors call attention to the fact that the hygiene of the home is a subject of growing interest and importance. As one of the problems of social and economic science, it is beginning to receive the attention it may rightly claim. The women of our country are advised not only to follow the discussions which are carried on by sanitary congresses, boards of health, and other authorities, but by combining theory with practice, as few others can, to aid in solving the great questions which seriously affect the interests of the home and the family.

The object of this manual is to arouse the interest of housekeepers in the sanitary condition of their homes; not to alarm or discourage them, but to urge intelligent oversight, and to indicate the points requiring investigation, the methods of examination, and the practical remedies. One of the most dangerous qualities of the unsanitary house is that it does not always and at once produce a definite and virulent disease, such as typhoid-fever or diphtheria, but without doubt it slowly and insidiously causes ill health and general languor, which incapacitate for sustained effort, and to which women are especially subject from their greater confinement to the house.

Householders are reminded that it is not enough to secure right sanitary conditions: these must be maintained. This can best be done through the eternal vigilance of the housekeeper, who can thus, in a large measure, secure the two essentials of a happy home, —good health, and its attendant, good nature. The following motto should be the basis of her efforts: "Any invention intended to be a substitute for watchfulness will prove a delusion and a snare."

The following are the subjects discussed in the succeeding chapters: situation of the house, and care of the cellar; drainage and plumbing; ventilation; heating; lighting; furnishing; clothing; food and drink. The essays themselves are excellent, and the questions on them are very practical and suggestive. The manual also contains a paper read before the Association of Collegiate Alumnae, on sanitary work for women, by Annie E. Allen, in which some excellent advice is given to housekeepers on various subjects; such as their relations to their servants, the dangers connected with boarding-schools, and their duties to themselves.

The concluding paragraph of this paper is as follows: "The day is past when sickness was held to be a direct interference of Providence, as retributive punishment. Pestilence, fevers, and weakness are, indeed, penalties for sin, but it is the sin of ignorance. In this age of scientific enlightenment, and invention, and wide-spread information, ignorance of the primary conditions of health and vigor is unpardonable. A knowledge of sanitary principles should be regarded as an essential part of every woman's education, and obedience to sanitary laws should be ranked, as it was in the Mosaic code, as a religious duty."

We commend this little book to housekeepers, and hope that it will have wide circulation, and prove of as much benefit to those without the membership of the Sanitary Science Club as it evidently has to those upon its rolls.

The New Education. By GEORGE H. PALMER. Boston, Little, Brown, & Co. 16°.

THOSE who are studying the many problems attending the development of our colleges and universities will be grateful to Professor Palmer of Harvard for preserving in permanent form the three articles which make up this book. On the appearance of the first of them in the *Andover Review*, some eighteen or twenty months ago, attention was directed to it as the strongest and fairest plea for the system of free electives in the college course, that had been published. It was immediately subjected to criticism and attack; and in the two other articles which form part of the volume before us, Professor Palmer replied to his critics.

Professor Palmer takes pains to keep one fact, fundamental to the fair discussion of the Harvard system, before his readers; namely, that the particular modes of choice now in use at Harvard are not finalities. They are a stage, merely, in the development,

and it is to be expected that other and better systems will eventually be found, both at Harvard and elsewhere. This consideration has been largely overlooked in the many discussions which have taken place, and omission to give it proper weight has prejudiced the Harvard case very much.

The peculiar strength of Professor Palmer's argument arises from the fact that it rests on a philosophical and ethical basis. It is not an appeal for conformity to a changing environment, although that feature is recognized; nor is it an *ex parte* argument for some preconceived system. It starts from the individuality of the pupil, and demands that his will and character be trained, and that by the exercise of his own free will, —the only character-building that amounts to any thing. Professor Palmer has no difficulty in making out a theoretical case from this standpoint, nor does he find any but cumulative evidence for his system in such facts as he cites from college-history. It must be admitted, too, that he has little trouble in offsetting the objections raised against his ideal plan by most of his critics. He does not allude, however, to Professor West's analysis of President Eliot's report for 1884-85, which many persons regard as the most damaging criticism on the Harvard system that has appeared. We regret this, for Professor West's paper has had a wide influence; and if Professor Palmer could successfully refute its conclusions, he should have done so.

We can heartily agree with the present author in holding that character-building is the main object of education, and that character-building is not mechanical, but organic. It depends, therefore, upon the pupil himself; and habitual wisdom of choice can only be attained through freedom of choice. We agree also in holding that the elective principle has come to stay, and that it will never again be wholly absent from any successful college. But we cannot conclude so rapidly as does Professor Palmer, that unlimited election is the wisest system. It may in time be proved to be so, but we cannot agree that it is proven to be so now. The danger of abuse and the tendency to over-specialization are so great, that we must ask for some provision to be made against them. Moreover, wiser heads than those of eighteen-year old boys know far better than the latter what sorts of knowledge are essential, and what non-essential. We would never urge a return to the old-fashioned inelastic course of study; but we do believe that the group system, modified in certain details, is superior to a system of unlimited election. We believe that under it there is found the freedom of choice which Professor Palmer insists on, as well as the necessary limitations to the abuse of that freedom by untrained minds. We would have it more elastic than it is found at present; we would have a greatly increased number of groups provided, but we would retain its fundamental principle. As the free man must exercise his freedom with due regard to the rights of his fellows, so the freedom of a student's choice must be limited by the teachings of experience. Professor Palmer himself seems to see the force of this position, for he says (p. 105), "Whenever I can hear of a group system, which like the old college has a place for the indistinct young man, and like the new elective college matures him annually by suggesting that he take part in shaping his own career, I will accept the group system." We have confidence that such a system of groups will be forthcoming in due season.

The remarks of the author toward the close of his volume (pp. 142-144, 149, 150, *et ff.*) as to the form of instruction and the character of the studies during the two final years of the college course, are intensely practical, and we trust that they will be heeded. As to methods of collegiate teaching, Professor Palmer says, "Recitations pure and simple have serious drawbacks. They presuppose a text-book, which, while it brings definiteness, brings also narrowness of view. The learner masters a book, not a subject. After-life possesses nothing analogous to the text-book. A struggling man wins what he wants from many books, from his own thoughts, from frequent consultations. Why should not a student be disciplined in the ways he must afterwards employ?" "A pure lecture system is a broad road to ignorance. Students are entertained or bored, but at the end of a month they know little more than at the beginning. . . . Personal sanction is wanted for every step. One who will grow wise must perform processes himself, not sit at ease and behold another's performance."

He again strikes a telling blow at the crude courses of study

in many colleges, when he says (p. 149), "Elementary studies are not maturing studies: they do not make the fibre of a student firm. To studies of a solidifying sort the last years should be devoted. I should like to forbid seniors to take any elementary study whatever, and to forbid juniors all except philosophy, political economy, history, fine arts, Sanscrit, Hebrew, and law. Under such a rule, we should graduate more men who would be first-rate at something; and a man who is first-rate at something is generally pretty good at any thing."

Professor Palmer's forceful thinking is interpreted by a lucid style, which adds greatly to its charm. No one interested in our American colleges can afford to leave the book unread.

N. M. B.

NOTES AND NEWS.

THE 'Bibliography of the Eskimo Language,' by James C. Pilling, is the first of a series of bibliographies of American languages which will be published as bulletins of the Bureau of Ethnology. A few years ago Mr. Pilling published a bibliography of North American languages, of which a limited number of copies were printed. The material has so rapidly increased in the hands of the author as to make a revised edition desirable. We consider the new form of the publication a great improvement, as the division of the material according to linguistic stocks makes the volumes handier. The arrangement of the material is alphabetic, both the names of the authors and the titles of the works being given. Thus the finding of any desired material is made very easy. Particularly valuable are the cross-references given under the heading of 'Greenland,' 'Aleut,' and other localities or tribes, and those under the heading of 'grammar' and 'vocabulary,' as they contain all material on these subjects. Mr. Pilling has comprised in his bibliography, books which contain only occasional remarks on Eskimo dialects in the text, though no connected accounts of the language are given. This made the compilation very difficult, as the material of this kind is scattered over an enormous literature. Notwithstanding this difficulty, Mr. Pilling has succeeded in bringing together an enormous amount of material. We do not think that many works of great importance are omitted, though the number of works containing remarks on Eskimo dialects might be considerably enlarged. We miss the important vocabulary of Rev. Gasté from Chesterfield Inlet, which was published by Petitot. Furthermore, the earliest records of the Eskimo language are older than Pilling states. In the description of the second voyage of Martin Frobisher, which was published in 1577, we find the name of a chief, 'Catchoe,' mentioned. In the 'Second Voyage attempted by Master John Davis, with others, for the Discovery of the North-west Passage, in anno 1586,' which was published in Hakluyt's, 'Principall Navigations,' 1589, a brief vocabulary is given. But these are slight defects which are unavoidable in a bibliography. The work will be indispensable for the student of Arctic ethnology and philology.

— The following is a list of the United States Coast and Geodetic Survey parties in the field, or assigned to field-duty, for the present season: Prof. George Davidson, primary triangulation in southern California, and in charge of work on Pacific coast; C. O. Boutelle, reconnaissance for triangulation to furnish points for State survey, Minnesota; H. L. Whiting, directing work of State survey, Massachusetts, and survey of Vineyard Sound, etc.; A. F. Rodgers, physical hydrography, San Diego Bay, and topography south coast of California; G. A. Fairfield, transcontinental triangulation in Indiana; J. S. Lawson, primary triangulation in California; C. Rockwell, topographical reconnaissance, coast of Oregon; W. H. Dennis, topographical reconnaissance, Long Island Sound; A. T. Mosman, transcontinental triangulation in Ohio; J. W. Donn, topography, District of Columbia; C. H. Boyd, triangulation, coast of Maine; Charles Hosmer, topography, coast of Maine; C. T. Iardella, topography, Long Island; R. E. Halter, in charge Magnetic Observatory, Los Angeles, Cal.; Gershom Bradford, triangulation in Massachusetts, furnishing points for State survey; H. L. Marindin, physical hydrography, New York Bay; William Einebeck, transcontinental triangulation in Utah; F. W. Perkins, reconnaissance for triangulation in Indiana; J. J. Gilbert, triangulation

and topography, Washington Territory; Stehman Forney, topography, southern California; O. H. Tittmann, triangulation, coast of Maine; F. D. Granger, transcontinental triangulation, Kansas; Edwin Smith, telegraphic longitudes, Western States; Eugene Ellicott, topography, coast of Maine; E. F. Dickins, triangulation and topography, coast of Oregon; W. I. Vinal, survey Vineyard Sound, etc.; J. F. Pratt, triangulation and topography, Washington Territory; J. B. Baylor, magnetic work, Northern States; C. H. Sinclair, telegraphic longitudes, Western States; C. H. Van Orden, triangulation, Massachusetts; W. C. Hodgkins, topography, District of Columbia; R. A. Marr, re-survey Vineyard Sound; J. E. McGrath, levelling New York harbor; E. L. Taney, re-survey Vineyard Sound, etc.; J. H. Gray, topography, coast of Maine. Prof. George Davidson is just completing a new edition of the 'Pacific Coast Pilot' (to include the coasts of California, Oregon, and Washington Territory), about eight hundred pages of which have been received at the Coast Survey office, ready for the printer.

— The cable informs us that a letter from Emin Pacha dated Feb. 10, 1887, has been received. It seems that the attitude of King Mwanga towards Emin is far more friendly than some time ago, for Emin says that he hopes to make his retreat from his province by way of Unyoro. If he shall have succeeded in doing so, Stanley will be too late; but it is more probable that Emin, on hearing of Stanley's expedition in Unyoro or Uganda, will stay on the Mvuta Nsige, and await his arrival, or will try to meet him.

— We learn from *The Athenæum* that the government of India have undertaken a topographical survey of the native states of Travancore, Pudukota, and Cochin. The last survey was made seventy years ago. Some of the mountainous tracts of Travancore and Cochin are still absolutely blank, so that there will be much original work to be done.

— Professor Helmholtz, says *The Athenæum*, has been appointed president of the *Kuratorium* of the Physical and Technical Imperial Institute, which is to be opened at Berlin in 1888. Dr. Werner Siemens, who laid the foundation of the institute by his liberal gift, and Dr. Förster, the director of the Berlin Observatory, will also be curators.

LETTERS TO THE EDITOR.

* * The attention of scientific men is called to the advantages of the correspondence columns of SCIENCE for placing promptly on record brief preliminary notices of their investigations. Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

Temperance-Teaching.

MY attention has been called to the article on temperance, in *Science* of July 29. As evidence that I have given the subject some thought, I enclose you a copy of questions used last April in the schools of my county, in which no reference is made to stimulants or narcotics. I am inclined to think that constant reference to these subjects may tempt some of that age to a trial, in order to satisfy themselves if the sensation is as represented. General Grant says, "I know from my own experience, that, when I was at West Point, the fact that tobacco in every form was prohibited, and the mere possession of the weed severely punished, made the majority of the cadets, myself included, try to acquire the habit of using it."

JNO. TERHUNE.

Hackensack, N.J., Aug. 1.

Audubon's Grave.

THE Audubon matter stands about thus: the great ornithologist is buried in an old family vault, not in the best order, at the extreme south-west corner of Trinity Cemetery. Only the name 'Audubon' over the door gives any indication.

Some street alterations are to be made ere long, which will cut close to this vault. An offer has been made by the trustees of the cemetery, and accepted by the Audubon family, to remove the remains, and place them in a plot (granted for the purpose) at the head of Audubon Avenue. The movement now proposed is to raise funds among the ornithologists for a worthy monument to mark the spot. The orphan grand-daughters are not able to do