

the blood-vessels of the surface of the body, and deficient nutrition of the brain would result, and collapse. These were the fatal cases among both the rich and the poor.

WASTED SUNBEAMS; UNUSED HOusetops.—In a recent number of the *New York Medical Record*, Dr. Gouverneur M. Smith makes some extremely valuable suggestions in an article entitled "Wasted Sunbeams; Unused Housetops." He says that human habitations, though erected for the benign purposes of insuring comfort, affording protection, and promoting family privacy, are, unfortunately, often the causes of a number of the morbid ills from which mankind suffers. This fact is true, as relating to the residences both of the rich and of the poor. It is a difficult task to construct an absolutely sanitary dwelling. In nearly every house, however, there are more or less avoidable insalutary conditions, which are undermining the health of each family circle. After describing the advantages of tent-life, and the benefits which accrued to those who lived most of the time out of doors, he goes on to speak of the incompatibility of such a life with the demands of a civilized race, and a rigorous climate. History tells us that certain nomadic tribes in the early ages, finding aggregation and permanency of residence desirable for business and other purposes, built solid structures, and, striking their tents, henceforth dwelt in substantial residences. While the early Orientals had but little knowledge of the exact nature of air and sunlight, they nevertheless believed that fresh air was an important factor in maintaining physical vigor, and that exposure to the solar beams was salutary. In constructing their homes, their architects utilized their housetops, and gave them salubrious plateaus. The roofs, gently declining as watersheds, were covered either with tiles, bricks, or cement, making them as durable as pavements. Beddings of turf, prettily distributed, made these artificial deserts to 'blossom as the rose.' Dr. Smith asks the question, "Is there any thing, either in our climate or state of civilization, which prevents us from, in a measure, imitating such ancient, useful, and fashionable airiness?" Our atmosphere is proverbially bright, and many of the severer days are sunshiny. In a great metropolis like New York there are thousands of children and invalids, to say nothing of those in mature years and engaged in the ordinary pursuits of life, who require more fresh air and sunning than is now practicable. City yards are small, shut in by tall buildings and high fences; the parks may not be adjacent; and the streets afford ill-conditioned pleasure-grounds. He suggests that it would be no difficult task for architectural ingenuity, assisted by sanitary science, to contrive some method of using the thousands of acres of housetops so that roofs, now so useful in affording indoor protection from cold, sleet, and rain, can be made additionally useful at certain seasons by affording out-door recreation and protection for invalidism. The 'solarium' of the New York Hospital, made attractive with its plants, birds, and aquaria, is a potent ally of therapeutics in restoring the convalescents, and at the Hospital for the Relief of the Ruptured and Crippled the contagious sparkle of the sunbeam is found shining in the eyes and lives of the young patients.

BOOK-REVIEWS.

Exact Phonography. By GEORGE R. BISHOP. New York, The Author (At the New York Stock Exchange). 12°. \$2.

EVERY writer of shorthand has often had occasion to regret the imperfections of the best of the modern systems. Pitman's 'Phonography,' with the American modification of it, and one or two others, English and American, which are in the main attempted improvements upon it, are almost perfect as to the representation of the consonant sounds and their combinations, and, if one attempts nothing more than the 'corresponding style,' are quite as unambiguous and legible as fairly written longhand script. But while the 'corresponding style' may be written much more rapidly than longhand, it is impossible to attain sufficient speed in it to make it available for the uses of the reporter, or of the student, professional, or business man, who desires to use it for jotting down quickly notes of what he sees or hears. To adapt it to these practical ends, it has been found necessary in all the older systems to abbreviate, sometimes at the expense of exactness and legibility. Vowels have

been almost entirely omitted, and indicated by the position with reference to the line of the ruled paper upon which the consonants are written; and as only three positions are used, while there are nearly twenty different vowel-sounds, it follows that the same character in the same position frequently represents three or four different words (in a few cases from six to a dozen). The context alone can show which of these words was intended, and the success of the writer in determining this at any future time will depend largely upon his knowledge of the subject treated of, or upon the tenacity of his memory. The prevailing systems of shorthand, also, fail when a great number of technical terms or foreign words or phrases are introduced, unless the terms, words, or phrases are those with which the reporter is familiar, and for which he has invented special contracted forms. Mr. Bishop, who is the stenographer of the New York Stock Exchange, has undertaken the difficult task of devising a system of shorthand in which, without sacrificing brevity and speed, all essential vowel-sounds shall be actually represented by written signs. His purpose is to leave little or nothing to the judgment or memory of the writer in transcribing. It is impossible, without making a practical trial of Mr. Bishop's 'Exact Phonography,' to determine to what extent he has succeeded. His system is certainly exact and unambiguous, and therefore easily legible, even in its most contracted forms; and it looks as though it might be written with as great speed as any of the older systems. Mr. Bishop calls his book 'A Text-Book for Self- and Class-Instruction.' It is certain that no previous new system of shorthand has been introduced to the public with so much fullness of explanation and wealth of illustration as 'Exact Phonography.' Every thing is made perfectly plain for the attentive student.

European Schools of History and Politics. By ANDREW D. WHITE. Baltimore, Murray. 8°.

IN *Science*, No. 253, we noticed the two interesting papers by Dr. H. B. Adams and Professor Fredericq on historical teaching in the United States and in England and Scotland. The present paper, by ex-President White, supplements these. It is the last issue for the year 1887 in the Johns Hopkins Series of Studies in Historical and Political Science. Most of Mr. White's accounts are based on his personal observation, and gain thereby much in value. On p. 11 we read, "As to the general character of all this instruction among German-speaking peoples, whatever it may have been in the past, it is not at present calculated to breed *doctrinaires*; it is large and free; the experience of the whole world is laid under contribution for the building-up of its students; questions of living interest have their full share in the classrooms. To know how our own democracy is solving its problems, one of the German universities sends to this country for study one of its most gifted professors,—one from whom thinking men on this side of the Atlantic have been glad to learn the constitutional history of their own country. The lectures of Professor von Holst, as delivered here, and his work upon the constitutional history of the United States, are sufficient to show that this instruction in the German universities is given in a large way, and is not made a means of fettering thought. At no seats of learning in the world, probably, is political thought more free. The University of Berlin stands in the main avenue of the capital of the German monarchy directly opposite the imperial palace. Within a stone's throw of the Emperor's work-table are the lecture-desks of a number of professors, who have never hesitated to express their views fully upon all the questions arising between democratic and monarchical systems. I have myself, in these lecture-rooms, heard sentiments freely uttered which accorded perfectly with the ideas of Republican and Democratic American statesmen." In a similar way the historical and political teaching in France is favorably commented on. The most valuable portion of the paper is that in which the writer applies the experience of Europe to ourselves, and points out what we should be doing in this direction, and how we may do it. It is an eloquent and able plea for broader and better historical and political teaching in our own colleges and universities. As an appendix to the main paper, there are printed 'Modern History at Oxford,' by W. J. Ashley; 'Recent Impressions of the École Libre,' by T. K. Worthington; and 'Preparation for the Civil Service in the German States,' by L. Katzenstein.