while standing on a curbstone, was struck a light tap by a coil of dead wire which a lineman dropped from a telegraph-pole. After considering the subject for some minutes, he concluded he had received a dangerous electric shock, and communicated the fact to the lineman and various passers-by. A medical examination showed no injuries from electricity.

With regard to these accidents, which as a rule receive sensational and exaggerated notice in the daily papers, it should not be forgotten that two connections with the body are always necessary for an electric shock; the "deadly wire" being of course one, while the other is the damp surface of the sidewalk, ground, a wet telegraph-pole, or other conductor. A person touching a live wire with no other electrical connection would feel nothing; neither would there be any perceptible shock should he stand upon dry boards or other insulated or insulating material.

Another thing to be borne in mind is that writers of sensational articles regarding electrical accidents, like all reporters, make up two or three columns of such matter more with regard to interest than accuracy, for the reason that the managing editor of the paper in which they appear will receive them, and the writers will be rewarded at the rate of from four to eight dollars per column for their work.

According to one of these articles in a New York daily, Mayor Grant is said to believe that the only way wholly to prevent accidents of this kind is by burying the wires, and that, when this shall be done, "there will be no more deaths resulting from people coming accidentally in contact with electric currents of sufficient force to render medical assistance useless." No doubt, many of the accidents already reported would never have occurred had the wires been under ground; but, as ex-Mayor Hewitt said before the National Electric-Light Association in 1888, "Gentlemen, when you once have your wires under ground, the next thing is to get them out for use."

Arc-lighting has evidently come to stay, and wherever the arc-light is, there its connections must be more or less exposed. The experiments of the ignorant, and the carlessness of reckless linemen, will continue to result in casualties as long as arc-lights are used, whether the wires are buried or not.

FUTURE RAPID-TRANSIT FOR MAIL AND EXPRESS MATTER. — There are at present two systems before the public for the rapid transit of mail and other light matter, either or both of which will no doubt prove successful in the near future. The Weems system, an experimental track for which has been built at Laurel, Md., has been illustrated and described at length in *Science;* and the results from the small experimental section already equipped have seemed to justify the construction of a five-mile track, which will soon be completed. This system employs actual electric motors in connection with a light elevated structure, the weight of the car with the motors being something like three tons. Whether such a mass, with its complicated and delicate electrical machinery, will come finally into commercial use, remains to be seen. The other system referred to is known as the Portelectric system, and the motto of the inventor is, "To dispense with mass and machinery." In this system a number of helices are used, taking their current from a metallic circuit on an elevated structure. The car itself is nothing more than a magnetized steel cylinder, pointed at both ends, running on a single track. The mail or other matter is placed in this receptacle, and the successive attractions of the different helices through which it passes augment its speed to a velocity the limit of which is so far unknown. A small section has been on exhibition for some time past in the Old South Church, Boston, and thousands of visitors have witnessed the phenomenal speed of the light steel cylinder, even in the narrow confines of the church. The New England Portelectric Company is now building a demonstrative section on a similar principle in Dorchester district, Boston, Mass., and the results will be looked forward to with interest. The electrical pressure used will be somewhere between two hundred and one thousand volts. The track will be elliptical, and the curves laid at an angle which will justify a speed of at least three miles per minute. The material is now on the ground, and the work is to be pushed rapidly forward. The inventor, Mr. John T. Williams of New York, is considering the extension of this principle to the projection of dynamite cartridges.

THE EIFFEL TOWER AND LIGHTNING. — It has been claimed from the first that the conductivity of the Eiffel Tower is sufficient not only to protect it against lightning, but to protect a large area contiguous to it. It is now claimed that the tower and some of its occupants have recently suffered from a stroke of lightning, and various accounts of "blue flames playing about the structure" have been current in the public press. These reports would be almost incredible, were it not for the fact that the directors have taken cognizance of the matter, and are seriously considering whether the conductivity of the tower is sufficient as it now stands. The safety of the structure is of considerable moment, not only to visitors, but from a financial point of view, when it is considered that a recent week's receipts, exclusive of rentals and privileges, have amounted to the round sum of sixty-seven thousand dollars.

BOOK-REVIEWS.

Institutes of Economics. By E. BENJAMIN ANDREWS. Boston, Silver, Burdett, & Co. 12°.

THIS book has been written because the author thinks that the existing manuals on the subject involve two serious faults of method. One is that they explain every thing too fully, thus leaving too little for teacher and student to do; and the other is that they do not mark by difference of type the distinction between the principles of the science and the examples used to illustrate them. Accordingly, his own presentation of the subject is very succinct, so much so as to deprive his book of all literary form; and his illustrations and much other matter are given in the form of notes. We are strongly of opinion that in both respects he has made a mistake. Economics is too difficult a subject to be adequately taught in so succinct a form as that of this treatise; and the separation of principle and illustration, besides being a literary fault, increases the difficulty of understanding the science. However, nothing but actual use can determine the merits of Mr. Andrews's method, and his work certainly contains a large amount of matter, and shows a thorough mastery of the best works on the subject. His views are substantially those of the English writers, with some modifications due to German thought. The concise character of the work renders some of its expositions obscure, and insufficient for a proper understanding of the subject, this being particularly the case with the account of supply and demand, which is only presented in a note, and very insufficiently there. The author's views are in the main sound, but his theory of "ideal money" can hardly be called so. He would have the State issue all money, both coin and paper; and, when there occurred a general fall or rise of prices, the government should "correct the same by expanding or contracting the circulation." Let us hope that "ideal money" will never come into use.

Handbook of Psychology. Senses and Intellect. By JAMES MARK BALDWIN. New York, Holt. 8°.

THIS volume is the first part of a general treatise on psychology, the second volume being designed to treat of the emotions and the will. It is both descriptive and theoretical, and is intended to present the latest views on the science, so far as these are accepted by the author. The style is plain and easily understood, except in a few places where the writer does not seem to have a perfect mastery of the thought he wishes to convey. Professor Baldwin considers the introspective method as the main instrument of psychological study, though he recognizes the value of the experimental method, so far as its reach extends. He rejects the theory of unconscious intelligence, and gives good reasons for doing so. His discussion of consciousness and of the nature and methods of psychology are among the best portions of the work. His views are to a certain extent eclectic, and reflect the present unsettled state of both psychology and philosophy. He tells us that he studied philosophy under one of the leaders of the Scottish school, and his work reflects in many respects the influence of that school. His classification is similar to theirs, and in particular he follows them in his treatment of reason as the "regulative faculty," the faculty of intuitions. In other parts his work shows the influence of Kant, while that of the empirical school and the physiologists is also apparent. Take, for example, his theory of the perception of

space. He rejects Kant's view that space is a product of our own mental action, and also the empirical theory, which reduces space to sensation, and gives as his own view that "the mind has a native and original capacity for re-acting upon certain physical data in such a way that the objects of its activity appear under the form of space." This theory he expounds at considerable length, but fails to make clear what this "mental reconstruction of space" really is, or even what he considers space itself to be. It is plain, however, that this theory is a compromise, or medium, between the Kantian view and that of the empiricists, and thus illustrates what we mean in saying that Professor Baldwin's work reflects the unsettled state of philosophy. If space permitted, we might incline to criticise some of his other views, and particularly his theory that perception and representation are fundamentally the same, and also some of his views on association. In the present state of opinion, however, no treatise on psychology can be entirely satisfactory; and Professor Baldwin's work, in spite of what we consider its errors, has much in it that is good.

An Elementary Class-Book of General Geography. By HUGH ROBERT MILL. London and New York, Macmillan. 12°. 90 cents.

MR. MILL is the lecturer on physiography and on commercial geography in the Heriot-Watt College, Edinburgh. His book is a descriptive geography, without maps, for which the student is referred to some good atlas, but with a few scattered illustrations intended to convey an idea of specially characteristic features of this or that country, or of scenes typical of the life. For instance, there are given views of a street in London, of a street in Cairo, of the Brooklyn Bridge, and of a hotel in the Blue Mountains, Australia.

In his descriptions we fear Mr. Mill has occasionally, for the sake of vividness, preferred to tell of one phase of the life he is handling, leaving his readers ignorant of the great variations that may exist in different branches of the same people. He tells of the Eskimo as living in their snow-huts in an atmosphere rendered so warm by the oil-lamps that they throw off all their clothing. That this is not the constant practice is well known. Again, the tendency to be a little hasty is shown in the statement that "when the sun is rising at Labrador, it is noonday at Vancouver Island."

The general narrative runs smoothly, however; and the book will be found suggestive by American teachers, though its being written markedly for the young of Great Britain will not inure to its advantage in this country.

AMONG THE PUBLISHERS.

THE Harrisburg (Penn.) *Telegram* is preparing to publish in book form a history of the Johnstown disaster. The volume will meet the popular demand for a full description of the great calamity. Besides, the fact that the net proceeds from the sales will be applied for the benefit of printers' orphan children, and aged men and women who suffered by the flood, commends the work to the favorable consideration of the public. The book will be sold by subscription only.

— The October *St. Nicholas* has contributions from Noah Brooks, Joel Chandler Harris, Celia Thaxter, Elizabeth Robins Pennell, Harriet Prescott Spofford, Julian Ralph, Margaret Johnson, Elizabeth Cavazza.

— Seven writers — clergymen, college professors, and public men, some of them specialists of acknowledged standing — have associated themselves to discuss special questions of social interest and import, and to prepare papers to be afterwards given to the public from time to time in the pages of *The Century*. The writers include the Rev. Professor Shields of Princeton, Bishop Potter of New York, the Rev. Dr. T. T. Munger of New Haven, the Hon. Seth Low of Brooklyn, and Professor Ely of the Johns Hopkins University. For each paper the author will be responsible, but he will have had the benefit of the criticism of the other members of the group before giving it final form. The opening paper will be printed in the November number. *The Century* also has in preparation a series of papers on topics relating to the gold-hunters of California. The articles will be prepared for the most part, as were the war papers, by prominent participants in the events which they describe; and they will include accounts of early explorations, life in Calfornia before the gold discovery, the finding of gold in 1848 at Sutter's Fort, the journey to California by the different routes (around the Horn, across the plains, by Nicaragua, and by Panama), life in the mining-camps and in San Francisco, and other important aspects of Calfornia life at the time. It is believed that these papers will be in the nature of a revelation to the reading public of the present day as to many interesting aspects of the pioneer period, its romance and adventure, its tragedy and pathos, and its poetry and humor. A careful search in California and elsewhere has already brought to light many interesting pictures never yet engraved. The publication of the papers will not be begun until the series is further advanced.

— Mr. M. F. Sweetser, for the past seventeen years connected with James R. Osgood & Co. and Ticknor & Co. as writer of their capital series of American guide-books, has become editor-in-chief for the Moses King Corporation. For a long time he will be exclusively engaged on the mammoth "King's Handbook of the United States," the most important and costly work of the kind ever published, and which will be issued next year.

— The success of Marshall P. Wilder's book, "The People I've Smiled With" (Cassell & Co.), has surprised no one more than that amiable little fellow, its author. He knew that he had a great many good friends, who would buy it and read it, but he did not know that they were to be counted by the thousands. The sale of this book has been second only to that of Max O'Rell's "Jonathan and his Continent."

— Messrs. G. P. Putnam's Sons announce as in preparation "An Experimental Study in the Domain of Hypnotism," by R. von Krafft-Ebing, professor of psychiatry and nervous disease in the University of Graz, Austria, translated by Charles G. Chaddock,