

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 carelessness 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