SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

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Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinions expressed in the communications of our correspondents.

Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The "Exchange" column is likewise open.

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MR. SETH Low, ex-mayor of Brooklyn, has been elected president of Columbia College, to fill the vacancy caused by the death of Dr. F. A. P. Barnard. President Low is an alumnus of the college of which he has just been made the head. He is a native of Brooklyn, and as mayor of that city attained a national fame. The general verdict is that the trustees have done well in selecting a man who has always shown himself equal to the positions of trust in which he has been placed, who is in the very prime of life, being about forty years old, and who has the due scholarly training for his new work.

THE WORLD'S-FAIR FINANCE COMMITTEE met Oct. 8, and received the report of their executive committee. The report of the executive committee was discussed, but not acted upon. After careful examination of the whole subject, the committee report that in their opinion no complete financial scheme can be determined upon until it is approximately known what is the aggregate amount of money to be raised; and this will be largely an open question until the site, plan, and scope of the exhibition are finally agreed upon. It is of first importance that Congress should give to the exhibition a national and an international character by appropriate legal enactment, which should, at the same time, determine its location in this the principal port of entry and metropolis of the country. It is also essential that the exhibition should receive encour-

agement and assistance from the State and city of New York; and the suitableness and liberality of this assistance must be an important factor in any financial plan which may be adopted, for if direct money contributions are voted, or lands are set apart for the use of the exhibition which belong to or may be acquired by the city, and upon which it may lawfully erect buildings, a very much less sum will be needed than if the committee must raise all the money, or if private property must be leased or purchased. Meanwhile, to show the sincerity and willingness of the citizens of New York, they recommend that steps be taken to raise a preliminary fund of \$5,000,000, for which stock should be issued, when authorized by congressional or legislative enactment.

The meeting of the world's-fair committee on site on the same day was largely attended. The chief business was the consideration of a report from the sub-committee on buildings, consisting of Messrs. Towne, Chandler, and Hunt, who were appointed specifically to ascertain in regard to the value of property within the boundaries of the proposed site. In substance the report said that the site should be ample for the construction of five buildings, to cover in the aggregate 65 acres, and 200 smaller buildings, to be scattered over an area not to exceed 250 acres. In regard to the area of the main site, the committee reported that the exposition could be held at Riverside and Morningside Parks and on adjacent private lands, of which there might be needed only 120 acres, but that it could be better accommodated in 200 acres, making the total area of the site from 200 to 270 acres. From all the inquiries that the committee had been able to make, the price of property in that section of the city was about \$100,000 per acre, involving an outlay of \$12,000,000 or \$20,000,000, according to the choice of 120 or 200 acres. When the various amendments had been voted on, the resolution, which was passed unanimously, read as follows: "That the proposed site, which includes Riverside and Morningside Parks, shall be held to comprise such portions of Central Park north of Ninety-seventh Street as are physically available and may be found absolutely necessary for the purposes of the exposition, and also to include adjacent lands fronting on the north and east of Central Park, is in all respects the best; that therefore all efforts should be concentrated upon the acquisition of the needed area in this locality."

MENTAL SCIENCE.

New Experiments upon the Time-Relations of Mental Processes.

WITH the law once admitted that all mental states are definitely related to and conditioned upon physical ones, it would readily follow that mental processes, or at least the physical changes that accompany them, take a definite amount of time for their normal performance. Furthermore, these times can be regarded as an index of the complexity of the act in question; and a comparison of the times taken up by various mental processes will furnish a basis for their classification, and may afford desirable glimpses of the nature of the processes themselves. This is the cardinal thought that has urged investigators to carefully measure those simple acts that lie at the basis of psychic life with all the accuracy that the use of refined and complicated apparatus could furnish. A great many interesting results were obtained, and many theories refuted. Recently the fact has come into prominence that the attitude of the subject, the direction of his attention, exercises a profound influence upon the results, and many observations have been repeated with this fact in mind. Among these the work of Dr. Münsterberg ("Beiträge zur Experimentellen Psychologie," Heft 1, 1889), of the University of Freiburg, merits detailed notice.

As re-actions were to be made by each of the five fingers of the right hand, many preliminary experiments were made with each to eliminate the difference in alertness of the fingers. The fingers pressed down upon the keys of a keyboard, and as soon as a sound (usually a word) was heard the re-action was made by raising the appropriate finger. In this simplest process of executing a move-