Calendar.

Thursday, April 2nd: Tickets for "Technique'97, on sale at MacLachlan's.
Thursday, April 2nd: Meeting of Geological Society, in Room 14, at 4:15.
Saturday, April 4th: Meeting of Y. M. C. A.

JUNIOR WEEK.

Monday, April 6th: Lecture by Prof. Frank Vogel on Goethe's "Hermann and Dorothea" and Longfellow's "Evangeline" and "Courtship of Miles Standish."

Tuesday, April 7th: Meeting of Biological Society.
Wednesday, April 8th: Annual Concert of Glee, Banjo, and Mandolin Club.
Thursday, April 9th: Junior Promenade.
Saturday, April 11th: Meeting of Y. M. C. A.

Physical Exercises and their Beneficial Influence.

[A short synopsis of the German System of Gymnastics as conducted at the Technology Gymnasium by H. J. Boos.]

II.

Exercises of strength may require more or less skill, so much so that the limits of the two kinds of exercises meet. In cases of doubt we would have to decide whether it be an exercise of strength or skill according to which is most required in performing the exercise.

In exercises of mere skill the participating muscles are required to perform very little work in proportion to what they are capable of performing, and no muscle is ever required to do more than it can easily perform. These exercises, on the other hand, may change to exercises of strength if they are often and successively repeated. For in this case those muscles which are mostly exerted gradually tire out; they then become reanimated, but are less capable of exertion, so much so that what is an easy exercise to the fresh muscles requires extreme effort on the part of the muscles which are tired out. The simplest calisthenic exercise will, if frequently repeated, become a real exercise of strength.

Another circumstance renders it difficult to decide between exercises of strength and skill, and that is the amount of practice the performer has had. One who has had practice has learned to estimate with some certainty the amount of strength required for each exercise, and therefore uses the smallest amount of strength needed. One who has had no practice, and who is awkward, is uncertain in his estimation. He therefore, to go sure, uses too much strength—in many cases as much again as is necessary. His muscles unnecessarily contract convulsively, and he is "stiff"; thus, an exercise of mere skill becomes to him one that requires great strength and exertion. He who has had practice saves strength.

With the exercises of quickness all this is different. It lies in the nature of the thing, that the separate motions, which, when often repeated, compose an exercise of quickness, cannot require the highest exertion of the single muscles, for if they did, the muscles would soon relax, and thus the exercise would terminate naturally, as we have seen above of the exercises of strength.

If, however, in exercises of quickness, great work can be performed without causing a relaxation of the muscles, there must be some reasons for it, and they are as follows:—

Firstly.—In all exercises of quickness the work required to be done is distributed over a complex of the largest and most powerful muscles, especially over those of the legs, which alone comprise one half of the whole muscle power of the human body. All exercises of strength and skill require a concentrated work of the muscles, while with the exercises of quickness it is a distributed work of the muscles that is required.

Secondly.—We must consider that in exercises of quickness and endurance the working muscles are not continually contracted, but are constantly changing from a state of exertion to one of relaxation. This circumstance greatly aids the circulation of the blood through the working muscles, and thus guards against the immoderate accumulation of waste