with various invertebrates, saying that he had found the lowest rate, 44 cm. per second, in a species of *Limax*, and the highest, 424 cm. per second in a squid; this rate was subject to very considerable individual variation.

Incidentally he noted that the collection of marine invertebrates showed a large number of new species of marine worms, and that the coast of California would probably prove a good collecting ground. F. A. LUCAS.

MEETING OF THE SAN FRANCISCO SECTION OF THE AMERICAN MATHEMATICAL SOCIETY.

A REGULAR meeting of the San Francisco Section of the American Mathematical Society was held at the University of California on December 20, 1902. Sixteen members of the society were present. By an amendment of the by-laws the name of section was changed from Pacific to San Francisco. The following papers were read:

PROFESSOR R. E. ALLARDICE: 'On a system of similar conics through three points and its transformation group.'

PROFESSOR H. F. BLICHFELDT: 'On a property of conic sections.'

PROFESSOR L. E. DICKSON: 'Generational relations for the abstract group G simply isomorphic with the linear fractional group in the Galois field of order p^n .'

PROFESSOR L. M. HOSKINS: 'A simple method of determining the free nutation of a yielding spheroid.'

DR. D. N. LEHMER: 'On the parametric representation of the tetrahedroid surface.'

PROFESSOR A. O. LEUSCHNER: 'Elimination of aberration and parallax in calculating preliminary orbits.'

MR. W. A. MANNING: 'The positive primitive substitution groups of class $2p$, p being any prime.'

PROFESSOR G. A. MILLER: 'On the holomorph of a cyclic group.'

DR. C. A. NOBLE: 'A problem in relative minima.'

DR. S. D. TOWNLEY: 'The probability of collisions amongst the stars.'

PROFESSOR E. J. WILCZYNSKI: 'On a certain congruence associated with a given ruled surface.'

The paper by Professor Dickson was presented by the secretary. In the absence of Professor Leuschner his paper was read by title. The other papers were presented by

their authors. The next meeting of the section will be held at Stanford University in May, 1903.

G. A. MILLER,
Secretary.

CORNELL SECTION OF THE AMERICAN CHEMICAL SOCIETY.

THE Cornell Section of the American Chemical Society was organized in December last, and has now received its charter from the national organization. The territory embraced by the section is that lying within a radius of ten miles from Cornell University, Ithaca, N. Y., with headquarters at the university. At the time of organization there were twenty-four members of the American Chemical Society who became charter members of the Cornell section. Since then the membership has increased to forty-four.

The officers for the current year are:

President—Professor L. M. Dennis.

Vice-President—Professor W. D. Bancroft.

Secretary-Treasurer—Mr. W. C. Geer.

Executive Committee—Messrs. Dennis, Bancroft and Geer, *ex officio*, Professor W. R. Orndorff, Mr. J. E. Teeple and Mr. J. G. O'Neill.

Councilor from Cornell Section—L. M. Dennis.

Councilor ex officio—G. C. Caldwell.

The meetings of the section are to be held monthly in Morse Hall, Cornell University. The evenings will be occupied largely with original papers read by members of the society, but it is planned to vary the meetings with occasional lectures or addresses by men well known for work in special fields. Thus in the course of the year there will be interspersed with the original papers, addresses on subjects of technical importance and on the more chemical phases of allied sciences. By this means the society will conserve all the fundamental aims of the American Chemical Society, as well as aid in broadening the horizon of the members of the section by keeping them in touch with the progress of those sciences which so frequently extend into the fields of chemical research.

The first meeting was held on the evening of December 15. Papers which presented the results of original work done in the chemical department were read and discussed. Mr. E. S. Shepherd read a paper on the