tained by heating the amino terephthalic acid with formamide, urea, etc.

Condensation with p-Diamino Terephthalic Ester: J. M. NELSON and M. T. BOGERT.

p-Diamino terephthalic ester was condensed with phenyl isocyanate, phenyl isothiocyanate, and with formamide, giving various complex heterocycles. From these substances various derivatives were prepared and studied, many of which were found to be strongly fluorescent.

Officers of the section for the year 1906–07 were elected as follows:

Chairman—A. A. Breneman.
Vice-chairman—H. C. Sherman.
Secretary-Treasurer—C. M. Joyce.
Executive Committee—G. C. Stone, C. H. Kiessig, V. Coblentz, D. Woodman.

F. H. POUGH,
Secretary.

THE TORREY BOTANICAL CLUB.

ON May 23, 1906, the club held a special meeting in commemoration of the tenth anniversary of the commencement of work in the development of the New York Botanical Garden.

The meeting was held in the lecture hall of the museum building at the garden, with President Rusby presiding.

After the election of new members the club listened to an illustrated lecture by its president on 'The History of Botany in New York City.'

Dr. Rusby presented a historical sketch of the development of botany in the city of New York, giving special attention to the history of local botanical gardens, of the botanical department of Columbia College and of the Torrey Botanical Club. The earliest local work related to the botanical gardens of Colden, Michaux and Hosack, and to the publication of local catalogues and floras. The second period was that of text books, manuals and other educational works. Out of the associations resulting from local work, the Torrey Botanical Club developed so gradually that it is impossible to fix the date of its actual beginning. Portraits of its early members were exhibited and brief biographical sketches presented. Out of the activity of the club and of the botanical department of Columbia grew the demand for a great botanical garden, which was satisfied by the establishment of the present New York Botanical Garden. The contemporary botanical forces at work in the city were briefly described, and their most important present needs outlined. The complete address will be published in *Torreya* for June and July, 1906.

The lecture was followed by an informal reception in the library, and by an inspection of the library, laboratories, herbaria and the museum exhibits.

C. STUART GAGER,
Secretary.

DISCUSSION AND CORRESPONDENCE.

INTERCOLLEGIATE ATHLETICS AND SCHOLARSHIP.

To begin with, and to end with, I have no opinions to offer, no theory to defend, no purpose to dispose of a broad and complicated problem with a few general sweeps of rhetoric. Without such credentials, I dare not appear in public under so weary and worn a topic. Intercollegiate athletics has had so much talking about it and one must be bold indeed—usually too bold—who ventures more mere opinion. On whatever phase of education the organization of contemporary experience can yield facts, it is an old and pernicious habit to guide practise by mere opinion. On such subjects one man's opinion is about as good as that of another, and neither is worth much. The quantity of opinion on the subject of football is to the quantity of fact in about the same relation as the forty thousand yelling spectators to the little pile of men on the gridiron. My present purpose is to contribute a body of facts to one single phase of the problem.

Athletics are denounced in arguments as numerous and as varied as those recklessly put forth on the other side. On both sides of the question we hear some reason and much exaggeration, some fact and much opinion. Those who oppose football as played last fall in American schools and colleges hold that the game is injurious to healthful student life on account of the large number of injuries re-

ceived in play and practise, on account of extreme publicity, absurd exaltation of the hero, large amounts of money spent, immoral tendencies inherent in the game itself, professionalism, and finally because of the harmful influences on scholarship. On the last of these alleged evils at least, facts are available.

To aver that trustworthy conclusions on the relation of scholarship and athletics can be drawn only from hundreds of cases covering a number of years would seem a trite observation, if one were not daily confronted with opinions based on absurdly insufficient data, and stoutly maintained. Mrs. A. is perfectly sure that all athletics should be abolished, because, forsooth, her boy played on a football team and failed to pass his examinations. Mr. B. regards such an opinion as absurd, because he knows of a whole team which failed not of promotion. Both are equally firm in their opinions and equally regardless of the fact that the whole question is a relative one, and that general truths can not be established by exceptional data.

It seems, on the other hand, that conclusions concerning the effect of athletics on scholarship might be creditable if based on years of experience, scores of studies, hundreds of students and thousands of grades, recorded by a large number of teachers in several institutions. Such conclusions I have gathered with great care, and I now offer them for what they are worth.

At Bates College, Lewiston, Me., I examined the records in all studies for the past five years of the 132 men who have played on the baseball and football teams. These records I compared with those of all the other male students, 620 in number, in all studies for the same period. The averages thus reached are drawn from 2,030 grades for athletes and 9,320 grades for others. These grades were made up by twenty-five instructors. The table shows that in no year is the difference of rank more than eight per cent. or less than four per cent., and that the average difference is 5.6 per cent., always in favor of the men who have not taken part in intercollegiate games.

BATES COLLEGE.

	Athletes.	Non-athletes.
1900–1901	77	81
1901–1902	75	80
1902–1903	74	80
1903–1904	73	79
1904–1905	71	79
Average	74	79.6
No. of grades.....	2,030	9,320
No. of men.....	132	620

For Bowdoin College a similar table has just been compiled by students in education at that college, showing the ranks attained by all students in all courses for the past five years. The averages only are here given. The first table represents the ranks of all men who played regularly on the football and baseball teams; the second table includes the ranks of all other students. The averages are secured from 18,750 individual ranks, representing each year the scholarship records of 280 men. The tables show that each year the rank of the baseball and football players was lower than that of the other students, the difference varying from one per cent. to five per cent. For the whole five years the average rank of all athletes in all studies was 77.57; that of all other students was 80.37.

BOWDOIN COLLEGE.

	1899–1900	'00–'01	'01–'02	'02–'03	'03–'04	Aver.
Athletes.						
Seniors	85.2	76.43	79.2	78.14	80.	79.79
Juniors	75.	82.75	75.4	76.	79.	77.63
Sophomores	78.67	79.14	77.	71.57	78.5	76.97
Freshmen	75.3	84.	77.5	69.	71.5	75.6
Whole college	81.1	79.16	76.68	73.67	77.2	**77.57**
Non-athletes.						
Seniors	82.6	81.51	82.09	82.09	84.5	82.5
Juniors	86.	80.07	79.	79.8	83.	81.51
Sophomores	82.	79.47	78.20	78.74	79.	79.5
Freshmen	79.7	81.	75.97	74.98	80.5	82.4
Whole college	82.05	80.51	78.59	78.88	81.7	**80.37**

All the varied secondary schools for which I have adequate returns show similar records. At Bridgton Academy, a rural school of the old type, the ranks for four years show that the athletes are one per cent. below the other students. At Thomaston, a typical high school for small cities, the athletes for four years fell three per cent. below the others.

At Westbrook Seminary, a private city school, the athletes are slightly below the others. At Hebron Academy, the largest in Maine, the athletes, for a period of three years, fell five per cent. below the non-athletes. In all the secondary schools for which I have trustworthy records, the athletes fall lower, but never more than five per cent. lower, than other students.

These facts regarding the relative scholarship of athletes and non-athletes cover the records of about two thousand students in six institutions for five years. The facts were gathered by twenty men of varied opinions on the question, who were not endeavoring to make the figures prove any theory or support any opinion. So far as the facts go, they are authentic. They overthrow two thirds of the *a priori* assumptions regarding the *excessive* injury of intercollegiate games to the scholarship of the men who play.

WILLIAM TRUFANT FOSTER.
BOWDOIN COLLEGE,
BRUNSWICK, MAINE.

NOTE ON THE YPSILOID APPARATUS OF CRYPTOBRANCHUS.

A DESCRIPTION of this cartilage in a recent article by Whipple ('The Ypsiloid Apparatus of Urodeles,' *Biol. Bull.*, May, 1906) differs radically from the description by Reese ('The Anatomy of *Cryptobranchus*,' *American Naturalist*, April, 1906). According to Whipple the cartilage has the typical Y-shape common to urodeles, being bifurcated at the anterior end; according to Reese it is rod-shaped. Having an abundance of material at my disposal, I examined this apparatus in a number of specimens. In every case the cartilage is Y-shaped, but with a marked difference in the structure of the anterior and posterior regions: the posterior portion, forming the stem of the Y, consists of a stout rod of cartilage; the expanded V-shaped anterior portion is very thin. In a dry preparation this thin expanded anterior portion would probably shrivel up and might be easily detached and hence overlooked; the remaining portion would then answer the description given by Reese. It is evident that in its entirety this apparatus has the typical urodele form.

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A NEWLY-FOUND STONY METEORITE.

THE writer has received notice from a correspondent in Alabama of the finding, near Selma, in that state, of a heretofore undescribed meteorite. The mass is reported as weighing upwards of 300 pounds, and is of Brezina's kugel chondrite type, much resembling the well-known stone from Tieschitz, in Moravia. It will be known as the Selma, Alabama, stone. A detailed description will be published later.

GEO. P. MERRILL.

SPECIAL ARTICLES.

THE GREAT CATALOGUE AND SCIENTIFIC INVESTIGATION OF THE HEBER R. BISHOP COLLECTION OF JADE.[1]

THREE years ago, on January 3, 1903, it was my sad duty to read before this section of the American Association for the Advancement of Science, at its meeting in Washington, a notice of the death of Mr. Heber R. Bishop, accompanied by a brief description of his remarkable collection of jade objects (see *Amer. Anthropologist*, N. S., Vol. 5, January-March, 1903, pp. 111–117). See also the Metropolitan Museum Bulletin for May, 1906.[2]

Since that time this magnificent collection, which was presented by Mr. Bishop during his lifetime to the Metropolitan Museum of Art, in New York, has been arranged and installed. He made a large donation for this purpose, and had had prepared and fitted up for its suitable exhibition the northeast room on the second floor of the new wing of the museum

[1] Read before the American Association for the Advancement of Science, New Orleans meeting, December 31, 1905.

[2] See the printed catalogue of the Heber R. Bishop Collection of Jade. By George F. Kunz. Occasional Notes No. 2, Bull. Metropolitan Museum of Art, May, 1906, pp. 1–8. 8vo. Three illustrations.