TABLE V

Results arranged according to Stellar Spectra

Class.		Par.	No. Stars.	Magn.	P. M.
Type I.	A	+0″.065	13	4.0	0″.42
Type II.	E	+0.068	12	6.4	0.71
	G	+0.125	4	4.0	0.69
	I	+0.030	5	5.5	0.67
	F	+0.079	30	4.7	0.66
	L	+0.040	1	4.1	0.11
	H	+0.023	24	6.5	0.65
	K	+0.054	5	1.9	0.88
Type III.	M	+0.007	3	2.1	0.22
	Q	+0.040	2	2.9	0.02

Table I. shows that there is, as might be expected, a distinct relation between parallax and proper motion. Not only are there striking individual exceptions to this law, however, but the group having a mean proper motion of 0″.77, with a mean parallax of +0″.039, destroys the continuity of the series.

In Table II. may be traced some relation between magnitude and parallax. This comparison would have great interest, had the selection of the stars been differently made. As it is, only the first group of ten stars were chosen with reference to their brightness, while all the rest were selected because of large proper motion, that is, in a general way, because of their nearness. Only a hint can therefore be obtained as to the real relation between the magnitudes and parallaxes of the stars as a whole. The table shows that in general bright stars are nearer than faint ones, though even this obvious truth is apparently refuted by the last two groups, which make stars of mean magnitude 8.3 much nearer than those of magnitude 7.6. It must not be inferred that the actual selection was unwise. Any other selection than that employed would probably have led for the most part to negative results. The authors made the best of an extremely difficult problem, perhaps the most difficult in the whole realm of observational astronomy.

Of Table III. the authors say: "This table may also serve to indicate the number of spurious parallaxes belonging to the work. If, according to Newcomb, we regard all the negative results as due to errors of observation, and likewise an equal number of positive values to balance these, it would seem that all seventeen of the group with parallaxes between +0″.14 and +0″.20 are real, 38 of those from +0″.07 to +0″.13 and 35 of those under +0″.06. Thus there are 90 stars of the entire list of 163, for which there is considerable presumption that the parallax values found are actual."

Tables IV. and V. appear to lead to results of small importance so far as distribution is concerned.

Finally, a summary is given for the different groups, except for Table III., of the average total stellar velocity relative to the sun, and of the luminosity relative to the sun. In this summary the greater luminosity of the brighter stars is strikingly shown.

Too high praise can hardly be given to these parallax investigations, carried on during so many years. Yet the results, though of great value in themselves, do not encourage the hope that by similar heliometer observations we shall ever gain a knowledge of the distances of any large number of stars, especially of those most distant. It is doubtful if we have, at the present time, any mode of research sufficiently refined to determine the parallaxes of the most distant members of our sidereal system. The quantities involved are too small. By more powerful instruments, especially by photographic telescopes of great focal length, it may be possible to determine smaller values than those yet found. The relation between proper motion and parallax offers a hopeful means for the determination of mean values, but this method has limitations. The relation between magnitude and distance is as yet uncertain. Indeed, the solution of the most difficult parts of the problem calls for some new means of research far more powerful than any known at the present time.

S. I. BAILEY
HARVARD COLLEGE OBSERVATORY

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE PLATTSBURG MEETING OF THE SECTION OF GEOLOGY AND GEOGRAPHY

SECTION E will hold a summer field meeting, July 3–10, 1907, in New York State in the

region between Lake Champlain and the Adirondacks.

Dr. Lane, the retiring vice-president, will deliver his presidential address during the meeting. Several informal talks will be given on subjects germane to the field excursions, during the half hours after lunches. Papers may be expected from Professors Fairchild, Davis, Kemp, Cushing, Woodworth, Hudson and others.

Dr. John M. Clarke will give a paper on 'Lake Champlain' including an account of the work of the state in the Champlain Valley which is classic ground in the history of American geology. The region is the field of three great wars and many bloody encounters before them and the records of these events are locked up in some measure in the place names of the country. The section owes much to Dr. Clarke for his careful planning of the meeting so that visiting geologists will see as much as possible of this extremely interesting region.

The program of excursions is as follows:

Wednesday, July 3. — Preliminary trip. Preceding the first day of the regular trips Professor Woodworth will conduct those who desire to visit 'The Gulf' at Corey Hill, Canada, to that locality, passing over the marine beaches along the international boundary. Persons intending to take this trip should reach Mooers the night before. This party will join the other members at West Chazy for the Altoona excursion. As this trip must be made in wagons, the number is limited to twenty-five persons.

Thursday, July 4.—Trip to Altoona, Mooers Junction. Plattsburg to West Chazy by train; drive to Cobblestone Hill; Altoona spillway on Potsdam sandstone; to Altoona delta; thence down the Big Chazy to study the fossil shore lines, to Mooers, where the party will spend the night. Only twenty-five persons can be accommodated in the wagons; others may walk four and one half miles from West Chazy to Cobblestone Hill and the Altoona spillway. Guide, Professor Woodworth.

Friday, July 5.—From Mooers Junction to Chazy. The Chazy limestone in its varying aspects and its faults. If this trip is to be made it will be necessary to start in the morning, as there is no other train between the two places. Return to Plattsburg in the evening, to Hotel Champlain or the Catholic Summer School. Guides, Professor Cushing and Dr. Ruedemann.

Saturday and Sunday, July 6 and 7.—By steam-launch to Crab Island, Valcour Island and Valcour shore. Extensive displays of Paleozoic sediments with interesting structural features. Return Saturday evening to spend Sunday at Bluff Point, at Hotel Champlain, or the Catholic Summer School. Interesting exposures of the Trenton faulted down against the Chezy and of monchiquite dikes in the limestone, within easy walk of the hotel. Guides, Professor Cushing, Dr. Ruedemann and Professor Hudson.

Monday, July 8.—Plattsburg to Lyon Mountain by rail. The entire day to be given up to the examination of the magnetite mines. It may be possible to make stops at interesting localities: Dannemora, Cadyville, but this will depend upon convenience. Return to Plattsburg. Guide, Mr. Newland.

Tuesday, July 9.—Keeseville; Anorthosite and Potsdam conglomerate; north slope of Trembleau Mountain, Marine delta, and higher lake shores; thence to Ausable chasm cutting the Potsdam sandstone since the retirement of Hochelogan Sea. Return in the evening to Plattsburg. Guides, Professors Woodworth and Cushing.

Wednesday, July 10.—Plattsburg to Port Henry and Mineville iron mines, or to Ticonderoga and the graphite beds. It is not likely that both trips could be made on the same day. Each one will choose which excursion he will take. The Port Henry and Mineville trip will be under the guidance of Mr. Newland, the Ticonderoga trip under the guidance of Professor Kemp.

Thursday, July 11.—If any of those who attend the meeting would like to spend another day in visiting points of interest on Lake George on the way home, Professor Kemp has kindly consented to act as guide for this excursion.

There will be a winter meeting of the American Association in Chicago, when there

will be abundant opportunity for members of the section to present papers. The Plattsburg meeting is one primarily for field excursions.

The Hotel Champlain, charmingly situated overlooking the lake, will accommodate 300 to 400 persons. The rate will be about four dollars a day.

The Champlain Assembly, incorporated as the 'Catholic Summer School of America,' has invited the members of Section E, through its director, Mr. John B. Riley, to be its guests during the meeting. Rooms may be secured at one dollar a day in the buildings of the Champlain Assembly. Members may take their meals at the Champlain Club; breakfast, lunch, or supper, fifty cents; dinner, seventy-five cents. The grounds of the Champlain Assembly are three miles south of Plattsburg and less than half a mile from the Hotel Champlain. Both may be reached from Plattsburg by steam-train or trolley.

A circular will be sent about June 15 to those who plan to attend the meeting. This will give information in regard to railroad rates. The summer excursion rates will doubtless make it possible to secure round-trip tickets for a little more than one and one third single fare.

The sectional committee of Section E extends a cordial invitation to all members of the Geological Society of America and the Association of American Geographers to attend the Plattsburg meeting.

F. P. GULLIVER,
Secretary Section E

NORWICH, CONN.,
April 25, 1907

THE LEICESTER MEETING OF THE BRITISH ASSOCIATION[1]

THE British Association is assured of a hearty welcome to Leicester for its seventy-seventh annual meeting to be held there from July 31 to August 7, under the presidency of Sir David Gill, K.C.B., F.R.S. Leicester is a place of great antiquity, few towns in England having a longer history of uninterrupted activity. Its Roman remains include the 'Jewry Wall,' a remarkable example of brick-work, and some mosaic pavement *in situ*. The geological features of the district are comprehensive, the Charnwood Forest, with its rocks providing many a geological puzzle, being within a few miles of the town. Botanists, too, have a happy hunting-ground there. The local committees and sub-committees are working hard to insure the success of their efforts, and great interest is being shown on all sides in the visit of the association to Leicester. A guarantee fund of more than 3,300*l.* has been raised towards the necessary expenses of the welcome, and this without any public appeal being made. No less than eleven amounts of 100*l.* and upwards are included in this sum.

A call has been made on all the principal halls and public buildings throughout the town for general and sectional use, and it is believed that the arrangements when completed will be most satisfactory in every way. The greatest difficulty the executive committee have had to meet has been the fact that Leicester possesses no town hall or public building large enough for the purposes of the holding of the usual conversazione and general reception of the large number of members and guests anticipated. An ingenious suggestion, however, on the part of the chairman of the executive committee (Mr. Alfred Colson), which has met with the full approval of all concerned, promises to overcome all obstacles, and even to make the proposed conversazione additionally attractive on account of the unique way in which it will be housed. The intention is to utilize the whole of the present museum buildings, including the art gallery and mayoral reception rooms, for the use of which permission has been granted, and to erect on the four sides of the grass square adjoining a loggia or corridor constructed entirely of timber, 25 feet in width, forming a covered promenade about 500 feet in length. The four outer sides will be closed, but the inner sides, overlooking the grass-plot, will be open, and so constructed as to be easily beautified with floral decorations. Internally the loggia will be draped with incombustible material and fitted with electric light and suitable furniture. Besides answering for the reception to be given by the Leicester Literary and Philo-

[1] From *Nature*.