

other observatories are also inserted in the tables. Thus this and all preceding publications make available all the radial velocity results obtained at Mount Hamilton and Santiago up to date, excepting suspected variables and stars the spectra of which contain lines not sufficiently serviceable for measurement. The published lists include, therefore, all stars as bright as the 5.00 visual magnitude in the Revised Harvard Photometry, *Annals* 50, and, in addition, many hundreds of stars fainter than magnitude 5.00.

STELLAR PARALLAXES.—Prof. Frederick Slocum, in conjunction with Prof. S. A. Mitchell, of Columbia University, publishes in the July number of *The Astrophysical Journal* (vol. xxxviii., No. 1) the results of some stellar parallax determinations from photographs made with the 40-in. refractor of the Yerkes Observatory. The apparatus and methods used were similar in general to those previously described by Prof. Schlesinger, so the communication, to which reference is here made, is limited to the actual results of the investigation. The following table sums up in brief the values determined:—

Star	R.A. (1900) h. m.	Dec. (1900) °	Mag. and spectrum	Relative parallax	Probable error
♄ Andromedæ ...	1 4	+46 43	4.7 B ₈	+0.004	±0.008
48 Cassiopeiæ ...	1 54	+70 25	4.6 A ₂	-0.002	0.016
20 Persei ...	2 47	+37 56	5.7 F	-0.012	0.007
9 Camelopardalis ...	4 44	+66 10	4.4 B	-0.032	0.011
♃ Orionis ...	5 57	+9 39	4.2 A ₂	+0.036	0.016
Grönningen VII., No. 20.	16 21	+48 35	10.7	+0.125	0.012
Anonymous ...	17 33	+18 37	0.1	+0.108	0.011
BD 18°3423° ...	17 34	+18 37	0.0	+0.003	0.004
BD 18°3424° ...	17 34	+18 37	0.2	+0.003	0.008
16 Herculis ...	17 53	+20 50	5.5 B	-0.004	0.008
17 Lyræ C ...	19 4	+32 21	11.3	+0.124	0.008
P Cygni ...	20 14	+37 43	4.9 B ₄ P	-0.021	0.016
7 Cygni ...	21 10	+37 37	3.8 F	+0.006	0.016
Nova Lacertæ ...	22 32	+52 12	8 to 13 P	+0.007	±0.012

THE BIRMINGHAM MEETING OF THE BRITISH ASSOCIATION.

WE understand that the argument of the presidential address to be delivered by Sir Oliver Lodge at the Birmingham meeting is as follows:—A marked feature of the present scientific era is the discovery of, and interest in, various kinds of atomism, so that continuity seems in danger of being lost sight of. Another tendency is toward comprehensive negative generalisations from a limited point of view. Another is to take refuge in rather vague forms of statement, and to shrink from closer examination of the puzzling and the obscure. Another is to deny the existence of anything which makes no appeal to organs of sense, and no ready response to laboratory experiment.

In his address the president will contend against these tendencies. He will urge a belief in ultimate continuity as essential to science; he regards scientific concentration as an inadequate basis for philosophic generalisation; he believes that obscure phenomena may be expressed simply if properly faced; and he will point out that the non-appearance of anything perfectly uniform and omnipresent is only what should be expected, and is no argument against its real substantial existence.

Since we gave, in *NATURE* of July 17, summaries of the provisional programmes of most of the sections of the British Association, for the meeting to be held in Birmingham on September 10-17, notes on the forthcoming proceedings of the Engineering Section have reached us. A varied programme of engineering activity will be presented at the meetings of this section, under the presidency of Prof. Kapp, who will deal with electric traction in his opening address. A group of connected papers on the various influences which affect the propagation of electro-

magnetic waves will be read by Profs. Howe and Marchant and Dr. Eccles. Heat tests of electrical machines will be discussed by Mr. W. R. Cooper, and a practical demonstration of the varied uses of electric cooking appliances will no doubt prove of interest to the members of all sections.

Mechanical engineering claims a large share of the attention of the members, and will include an important paper by Mr. Lanchester, on the application of the internal-combustion engine to railway locomotion, in which he will describe his very successful work in this branch of engineering. Prof. Burstall will discuss the much-debated subject of solid, liquid, and gaseous fuels, and the committee on gaseous explosions will probably present a report on the temperature distribution in the cylinders of internal-combustion engines. A novel hydraulic weighing machine will also be described by Dr. Hele-Shaw, and a new process of bank-note engraving by Mr. Bawtree.

Considerable interest attaches to the report of the new committee for investigating the stress distribution in engineering materials, which will be discussed with the Mathematical and Physical Sections, and connected with this subject Prof. Coker will describe some optical determinations of stress in chain links and in thick cylinders under fluid pressure, Mr. Reid will discuss the flow of plastic solids, Prof. Dixon will deal with impact tests, and Mr. Robertson with the strength of free-ended columns.

Civil engineering is represented by a group of interesting papers, including one by Dr. Cornish on land-slides, accompanied by upheaval in the Culebra cutting of the Panama Canal, while Dr. J. S. Owens and Mr. E. R. Matthews will discuss the movements of sand and shingle in connection with marine engineering work.

A paper of great local interest, by Messrs. Gleadow and Shackle, will describe the fine new station of the Great Western Railway at Snow Hill, while the subject of metals for structures will be discussed by Mr. Walmisley.

The programme of the meeting of Section G is therefore not only of unusual interest, but many of the papers to be read are of considerable importance in relation to industries for which Birmingham is famous.

BONAPARTE RESEARCH FUND GRANTS.

THE committee of the Paris Academy of Sciences appointed to consider the distribution of the Bonaparte Research Fund has made the following recommendations for the year 1913:—H. Caillol, 3000 francs, for the completion of his work entitled "Catalogue des coléoptères de Provence"; A. Colson, 2000 francs, to enable him to continue his experimental work in physical chemistry; E. Coquidé, 2000 francs, to assist him in carrying out his study of the turf lands of the north of France from the agricultural point of view; C. Schlegel, 2000 francs, to enable him to continue his researches on Crustacean development; Jules Welsch, 2000 francs to assist him in his geological exploration of the coast lines of France and Great Britain, and to extend them to Belgium and Scandinavia; MM. Pitard and Pallary, 6000 francs, equally divided, for their scientific expedition in Morocco, organised by the Société de Géographie; Louis Roule, 2000 francs, for the continuation and extension of his researches on the morphology and biology of the salmon in France; M. Pougnet, 2000 francs, to enable him to continue his researches on the chemical and biological effects of the ultra-violet rays, and for the construction of a quartz apparatus to be used for studying the action of ultra-violet light