plates, but as it is the part strongly heated by the fire, the cell is filled with steam, which escapes in bubbles through the slits; the water then creeps into the cell, to be converted immediately into steam. This process goes on at first intermittently, but it soon reaches a stationary state. The bubbling of steam through the slits acts as exciter, and the kettle emits sonorous notes, which may be likened to the ruffling of pine trees by a gentle breeze or the sound produced by stridulating insects. The difference of sound is mainly due to the form of the kettle rather than to the method of exciting the vibration. To make the kettle sing loudly it is necessary to regulate the fire in such a way that the expulsion of steam bubbles from the cell is in good accord with the natural period of vibration of the kettle, so that it is set in sympathetic vibration. Excessive heating is, therefore, unfavourable to singing.

Various forms of steam exciter can be easily designed,

and different manufacturers seem to have their own speciality. When and where this method of exciting the vibration came into use is not well known, but as the kettles were common for many centuries, the exciter seems to have been invented by the amateurs of teaism (chanoyu) long before Western science was introduced to Japan. H. NAGAOKA.

Science College, Tokyo, September 27.

Bursaries at the Royal College of Science, London.

Science scholars selected from the whole of Great Britain for their ability and promise, maintaining themselves on 17s. 9d. per week, are year by year saved from much privation by secret gifts of small bursaries—see the subjoined audited account for last year.

I have no right to ask for help from the generous men who helped me last year, but I have all the sturdiness of

a chartered beggar. I ask in a good cause.

It was originally intended that these bursaries should be given only to such National Scholars as required assistance, but some of the subscribers have given me power to assist other students of the college. Also one of the two City companies has given me power to grant an occasional bursary of more than 10l. It is understood that every student is morally bound to repay this money to the fund at some future time. JOHN PERRY.

November 12.

ROYAL COLLEGE OF SCIENCE.

BALANCE SHEET, BURSARIES, 1905-6. Moneys Received and Paid by Prof. Perry from July 12, 1905, to July 12, 1906. Keceived.

		£	5.	d.
July 12, 1905—Balance in hand		22	19	0
,, ,, ,, —Royalty on Slide Rules		1	4	0
Oct. 20, ,, — ,, ,, ,,		2	II	0
Nov. 6, ,, — ,, ,, ,,		20	0	0
" 13, " —A. T. Simmons, Esq		10	0	0
" 16, " —Oscar Guttman, Esq		I	I	0
" 21, " —The Drapers' Company		100	0	0
Dec. 4, ,, -Robert Kaye Gray		10	0	0
", 7. " —Matthew W. Gray		10	10	0
Jan. 13, 1906—George Beilby, Esq	•••	10	10	0
" 13, " -Royalty on Slide Rules		3	15	٥
" 16, " -The Goldsmiths' Company	7	100	ō	0
July 6, ,, -Royalty on Slide Rules		I	1	O
				_
		£293	11	0
Paid.		£293	11	0
		£293	II	0
July 12 to Dec. 20, 1905-	•••	£293	0	0
July 12 to Dec. 20, 1905—		7	0	-
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s			0	0
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s Twenty-three Half-Bursaries, each £		7	0	0
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s Twenty-three Half-Bursaries, each £ April 6 to June 15, 1906—	5	7	0 0	0
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s Twenty-three Half-Bursaries, each £ April 6 to June 15, 1906— Two Half-Bursaries, each £7 10s	5 	7 15 115	0 0	0 0
July 12 to Dec. 20, 1905— One Bursary	5 	7 15 115	0 0 0	0 0 0
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s Twenty-three Half-Bursaries, each £ April 6 to June 15, 1906— Two Half-Bursaries, each £7 10s Twenty Half-Bursaries, each £5	5 	7 15 115	0 0 0	0 0 0
July 12 to Dec. 20, 1905— One Bursary Two Half-Bursaries, each £7 10s Twenty-three Half-Bursaries, each £ April 6 to June 15, 1906— Two Half-Bursaries, each £7 10s Twenty Half-Bursaries, each £5	5 	7 15 115	0 0 0	0 0 0
July 12 to Dec. 20, 1905— One Bursary	 5 	7 15 115 100 41	0 0 0	0 0 0 0 0
July 12 to Dec. 20, 1905— One Bursary	 5 	7 15 115 100 41 £293	11 0 0 0	0000

NO. 1934, VOL. 75

LAKE BALATON,1

L AKE BALATON, the largest lake in the Hungarian Plain, occupies a basin of internal drainage at the level of 343 feet above the sea, and has an area of some 230 square miles. It is well known from the watering-places and mineral springs upon its shores. In 1891 the Hungarian Geographical Society appointed a commission to undertake a detailed investigation of the lake. The scheme was supported financially by the Hungarian Minister of Agriculture, the Hungarian Academy of Sciences, and Dr. Andor von Semsey. The results are being published in three volumes; the first deals with the geography, geology, hydrography, climate, and the physical and chemical characters of the lake water. The second volume is devoted to biology; the third to the anthropography, ethnography, archæology, bibliography, and the description of the watering-places. There is also an atlas. Several sections of the work and the topographic atlas have been issued. contain contributions to all three volumes, and illustrate the thorough nature and wide range of the work.

The report on the ethnography, by the late Dr. Johann Jankó, translated by Dr. Willibald Semayer, is the longest contribution, and is perhaps of most general interest. It begins with a concise geographical description of all the localities around the shores of the lake, and then gives an interesting discussion of the place-names. They are mainly Magyar, with some Sclav and German additions. The place-names are classified into groups, based on orographic and hydrographic conditions, on plants, on the general features of the vegetation, on animals, on soils and rocks, on echoes (as in Ekko and Zongo odal, "the resounding side"), on industries, ecclesiastical terms, family and personal names, and races. (English occurs in the term Angol zollok, the "English vineyard," and in other names associated with gardens.) Other places are named after the days of the week, military terms, numerals, and unnatural death (such as "Olo" for murder). Historical place-names are placed as a special group, and they can be traced back to between the eleventh and fifteenth centuries; they are regarded by Dr. Jankó as of especial historical value as showing the unbroken continuity of the Magyar occupation of the Balaton district during the past nine centuries, in spite of the invasions of Tartars and Turks. The old families who have been domiciled round Lake Balaton for at least a century are mostly Hungarians; 6.5 per cent. are Jews, and 1 per cent. are foreigners. The census of 1890, enumerating a population of 55,000, gave their numerical proportions as follows: -98.809

1 "Resultate der Wissenschaftlichen Erforschung des Balatonsees." Balatonsee-Commission der Ung. Geographischen Gesellschaft. (Vienna: Ed. Hölzel, 1902-1906.)
Vol. i. "Physische Geographie des Balatonsees und seiner Umgebung." Part iv., Sect. 3, Resultate der Phytophänologischen Beobachtungen in der Umgebung des Balatonsees. By Dr. Moriz Staub, completed by Dr. J. Bernatsky. 45 pp., 1 map. (1906.) Part v. Die Physikalischen Verhältnisse des Wassers des Balatonsees. Sect. 2 and 3, Die Farbenerscheinungen an Bewegten Wasserflächen, by Dr. Baron Bela Harkanyi. 88 pp., 2 colplates. (1906.)

plates. (1906.)
Vol. ii. "Die Biologie des Balatonsees." Part i, Die Fauna des Balatonsees. Beiträge zur Kenntniss des Planktons, by Dr. Geza Entz, Jun., and i. and ii. Nachtrag zur Aufzählung der Weichthiere, by Dr. A. Weiss and Theodor Kormos. 76 pp. (1906.) Part ii., Die Flora. Sect. 1, Die Bacillarien des Balatonsees, by Dr. Josef Pantocsek. 112 pp., 17 plates.

Bactilarien des Balatonsees, by Dr. Josef Pantocsek. 112 pp., 17 plates. (1cc2.)
Vol. iii. "Social- und Anthropogeographie des Balatonsees." Part i., Archæologie der Balatonsee-Umgebung. Sect. i., Archæologische Spuren aus der Urzeit und dem Altertum bei Veszprem. By Gyula Rhé. 33 pp., 2 col. plates. (1506.) Part ii. Ethnographie der Umwohner des Balatonsestades. By the late Dr. Johann Jankó, continued by Dr. Willibald Semayer. 499 pp., 1 map. (1506.) Part v. Bibliographie des Balatonsees. By Julius von Sziklay. 65 pp. (1506.)
"Spezialkarte der Balatonsees und seinen Umgebung." By Dr. Ludwig von Loczy. 4 bleets. Scale 110 75 cog. (1002.)

von Loczy. 4 sheets. Scale 1 to 75,000. (1903.