

draughtsmen coming on who have been properly trained, and to ensure that these cadets shall have an aptitude for the work examinations have been held, and a number of applicants who passed have been appointed.

SURVEYORS' BOARD.

The Board's examinations were held as usual, a feature of them this year being the sitting of young men who had enlisted and were therefore allowed to take a partial examination prior to the completion of the terms of their articles. At the September examinations twenty-one candidates sat, of whom five passed, and at the March examination ten sat and three passed. The members of the new Board appointed for 1916 are Messrs. Thomas Humphries and R. T. Sadd, Government nominees; Messrs. H. Sladden and J. C. Simmonds, Institute nominees; and myself *ex officio*.

TIDAL SURVEY.

In the absence of the Chief Computer, Dr. C. E. Adams, this work has been carried on by Messrs. T. G. Gillespie and J. J. Hay, and consisted of the prediction of the times of high water for the ports of Wellington and Auckland for 1917. A fresh analysis has been made for the former port, and during the coming year a fresh one will be made for the latter. These will be used for the predictions for 1918.

MAGNETIC OBSERVATORY.

The work of the Observatory has been efficiently carried on by Mr. H. Skey. His full report, with illustrative diagrams and seismic records, will be published as a separate paper instead of an appendix hereto, as has been the custom.

GENERAL.

During the year there have been many changes in the personnel and arrangement of the staff caused by deaths, retirements, and enlistments. In last year's report I gave the names of those surveyors, cadets, and draughtsmen who had enlisted. During the year now ended the following have also enlisted: Staff surveyors—C. Kenny, R. F. W. Mackenzie, W. Paora, S. Parkinson; temporary surveyors—A. T. Leeds and C. K. Robinson; survey cadets—M. H. B. Burrell, T. S. McMillan, T. S. Roe, and J. C. Thomson; draughtsmen—R. C. Calman, R. J. Crawford, F. A. A. Field, A. D. Folley, H. D. Henderson, J. A. Montgomerie, R. V. Parker, J. Pegram, F. C. O'Reilly; draughting cadets—J. D. Clapperton, J. C. O'Hara, and T. G. Phillips; temporary draughtsmen—C. C. Best, S. O. Esam, M. W. Haworth, A. P. McConnell, K. J. Miller, W. Rochfort, A. C. M. Siceley, A. Turner.

I regret to have to report that three very promising young surveyors have been killed—viz., V. Blake, G. Pirrit, and W. B. de L. Willis—as also three very efficient draughtsmen—viz., G. J. B. Cairnie, E. A. Ingram, and H. B. Bandrup—and draughting cadet H. L. Wake. The loss of these officers is much felt.

The Department has also lost by death Mr. John Langmuir, Inspector of Surveys, and Mr. Henry Mackay, Chief Draughtsman. Special mention of these highly esteemed officers is made in the general report submitted by the Under-Secretary, as also of other officers who have retired.

Although the lists for the 31st March, 1916, show the strength of the field staff to be eighty-four officers, there will actually be only sixty-two available at the beginning of the incoming year. They comprise two Inspectors, forty-one staff surveyors, two assistants, eleven temporary surveyors, and six cadets; and of these one staff and one temporary surveyor have been granted leave to join the Expeditionary Forces. The position now is that in all districts only the more urgent work can be put through, while less important work, though necessary, must be held in abeyance.

The way in which the work both in the field and in the office has been kept up as well as it has been reflects credit on all the officers, and I am pleased to have the opportunity of bringing this under your notice.

Table 1.—RETURN OF FIELD-WORK EXECUTED BY HEAD OFFICE STAFF.

From 1st April, 1915, to 31st March, 1916.

Land District.	Secondary Triangulation (cost).*	Minor Triangulation.		Town Standard Surveys.		Rural Standard Surveys.		Inspections.		Other Work.
		Area.	Total Cost.	Miles.	Cost per Mile.	Miles.	Cost per Mile.	Number of Surveyors.		
								Staff.	Private.	
Auckland ..	£ s. d. 659 4 11	..	£	13.60	£	47.30	..	..	..	£ s. d. 214 0 0
Wellington ..	765 13 10	..	..	51 25	36.62	..	..	..	4	286 3 0
..	..	..	..	7.60	31.70	..	..	..	..	301 4 6

* The secondary triangulation work having been stopped, the cost of the year's work to date is inserted here.