

Embroideries on the curves were common, and were attributed to a long swell on the loch, to the wash of steamers, and frequently to the opening of lock-gates on the canal at Fort Augustus.

With the view of gaining information on the effect of small variations in atmospheric pressure, a Dines's sensitive barograph was obtained.\* Records from an ordinary Richard barograph had indicated sudden barometric changes as a frequent cause of seiches, and the records of the sensitive barograph supported this view to a certain extent, although on some occasions the loch seemed unresponsive to changes in atmospheric pressure. On other occasions, however, the limnograph record seemed to be an accurate reproduction of the record obtained by means of the sensitive barograph.

Loch Ness from its size proved to be rather unwieldy from the point of view of seiches, so that when, in the summer of 1905, the investigation of seiches was undertaken by Prof Chrystal, he made his headquarters on Loch Earn, and gathered much information as to the cause of seiches from his observations.†

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#### NOTES ON THE DEPOSITS OF LOCH NESS.

By G. W. LEE, D.Sc., and L. W. COLLET, D.Sc., with Analyses of Selected Samples by A. WILSON, F.I.C.

About sixty samples of the deposits covering the floor of Loch Ness were collected by the members of the Lake Survey staff from various parts of the loch, and were examined according to the methods used in the *Challenger* Office for the study of marine deposits.

They may be classed as follows —

- (1) *Dark grey mud*, from the deep basin opposite Urquhart bay ;
  - (2) *Ferruginous mud*, from the part of the Invermoriston deep basin opposite Horseshoe craig ;
  - (3) *Peaty mud*, from the south-west end of the Invermoriston deep basin ;
  - (4) *Yellow-grey clay*, from off Inverfarigaig and off Cherry island ;
- and
- (5) *Brown sand*, from shallow water off Urquhart bay.

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\* The purchase of this instrument was facilitated by a grant from the Moray Bequest to the University of Edinburgh

† For further details the reader is referred to the following papers.—“On the Hydrodynamical Theory of Seiches, with a Bibliographical Sketch,” by Prof. Chrystal, *Trans. Roy. Soc. Edin.*, vol 41, p. 599 (1905), “Calculation of the Periods and Nodes of Lochs Earn and Treig, from the Bathymetric Data of the Scottish Lake Survey,” by Prof. Chrystal and E. M. Wedderburn, *Trans. Roy. Soc. Edin.*, vol 41, p. 823 (1905), “An Investigation of the Seiches of Loch Earn by the Scottish Lake Survey,”; Part I. “Limnographic Instruments and Methods of Observation,” by Prof. G. Chrystal; Part II. “Preliminary Limnographic Observations on Loch Earn,” by James Murray, *Trans. Roy. Soc. Edin.*, vol. 45, p. 361 (1906).