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Mr. Anderson's article on the determination of sea-water densities

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MR. ANDERSON'S ARTICLE ON THE DETERMINATION OF
SEA-WATER DENSITIES.

IN my paper, published in last month's number of the *Magazine*, I unfortunately omitted to make special reference to the work of Mr. H. N. Dickson, and used without acknowledgment some data due to him, and included in his paper in Part III. of the *Report of the Fishery Board for Scotland* for the current year, which had not at that time been issued. This is a mistake I much regret, and which, I need hardly say, was unintentional. The table on page 581, which originally, in my first manuscript, was in the form of four separate tables, had a reference to Mr. Dickson and the Fishery Board; but their subsequent re-arrangement into one brought about the unfortunate omission of the reference attached to them.

On page 577, the determinations with the hydrometers Nos. 18 and 19 belonging to the Fishery Board were, as stated in my paper, calculated by means of the data given me along with the instruments by Mr. Dickson. These data were originally computed by him from observations he made on board the *Jackal*, under the same conditions as existed during all his other work, and were afterwards verified by myself. On page 581, the first column of differences is derived from the work in the North Sea of Professor Gibson and Dr. Mill, published in the *Fishery Board Report* of 1887-88. The other columns were obtained from Mr. Dickson's observations on the *Jackal*, which were made when the vessel was either in harbour or in dock, and not, as I had supposed, in the open sea like the *Challenger* observations. The *Jackal* results given are in each case averages of at least four readings with the two hydrometers, and are, therefore, only valuable in estimating a constant error, and not any uncertainty of the instrument.

Mr. Dickson corrects my statement that he proposed to make an addition of $+0.12$ to all hydrometer results. He stated in the paper, referred to in a footnote, that "my present purpose" was "merely to justify the application of a correction $= +0.12$ to the hydrometer values concerned." I must have been misled by his reference to the *Challenger* hydrometer, and his supposition that "on these various grounds it seems fairly reasonable to conclude that, apart from observational errors, there is a constant difference between the results of these two methods of determination."

I wish to take the opportunity to mention the kind assistance given by Mr. A. Ritchie Scott, B.Sc., in some of the hydrometer work.

W. S. ANDERSON.