## THE TIDES OF HUDSON BAY\*

By W. BELL DAWSON

THE chief interest attaching to the tides in this region is the successful outcome of the endeavor to discover tides of similar types in older harbors for which tide tables are calculated. This correlation has enabled immediate results to be obtained; instead of adopting the lengthy and expensive plan of establishin tidal stations in these remote regions, to obtain a tidal record during a year or more as a basis for calculation. The proceedure adopted thus affords an example of the successful application of the method advocated by the writer of classifying tides according to their various types, for purposes of reduction and calculation. (See this JOURNAL, July-August, 1907.)

The tides in this region are chiefly important because the great range in Hudson strait gives rise to strong tidal streams; and the shallow water around the shores of Hudson bay make the rise of the tide of consequence in entering the harbors.

## OBSERVATIONS AVAILABLE

The earliest observations obtained were during the Gordon expeditions in 1884 to 1886. Observers were landed on the desolate shores of Hudson strait with instructions to observe the tides, the drift of the ice, and the weather. Those stationed along the strait during the first year were H. M. Burwell, W. A. Ashe, R. F. Stupart, C. V. DeBoucherville and A. N. Laperrière. The coasts were so unknown that their names were given to the localities; as Port Burwell, Ashe inlet, Stupart bay, etc. These pioneers are thus commemorated. They were relieved in the following year by G. R. Shaw, J. W. Tyrrell, F. F. Payne, J.

<sup>\*</sup>Delivered as a lecture to the Ottawa Centre of the Royal Astronomical Society of Canada, 27 November, 1913.