The Tides of Hudson Bay

A fourth type of the tide, due to local influence and not astronomical, is the estuary type; which has a rapid rise and a slow fall. This may become so accentuated as to break and form a Bore.

The enquiry why it should be that in different regions the tide is thus more influenced by one element in the moon's motion than another, is a question to which we can give no satisfactory reply. But the classification of the tides of the world into their various types on the lines here indicated, would probably offer the best hope of a correct nuderstanding of the matter; whereas any stereotyped method of springs and neaps exclusively, will' tend to let it remain in obscurity. Meanwhile, the fact itself is a warning not to theorize too far, regarding the features that the tide ought to present in any new locality; but rather to investigate its actual characteristics, for purposes of correlation.

TIDES OF HUDSON BAY

In Hudson bay the tide is of two distinct types, one being an open-water type, as found at Churchill where the duration of the rise is longer than the fall, an nunsnal feature ; and the other an estuary tide of an extreme kind, as exemplified at Nelson. This contrast in characteristics is quite similar in Janues' bay ; and the tides at Clurchill and Nelson are thus probably typical of the whole region. Their leading features are as follows :--

Churchill — Range at springs 1314, at neaps 754 feet. Duration of Rise 6^h - 25^m; Fall 6^h - 00^m.

Nelson — Range at springs 14½, at neaps 11 feet. Duration of Rise 4th 20^m; Fall 8th 05^m.

When the endeavor was made to find tidal staticus which would serve as ports of reference for these harbors, it appeared possible that the tides of Hudson bay would prove similar to those of the North sea. The main tide, running up the Atlantic, branches to the east and west in entering these two water areas, where the land configuration is not unlike. If this conjecture were correct, the tide at Nelson should be similar to the extreme angle of the North sea, between Germany and Denmark. The

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