that the stirring of the waters by the ledge, contributes to the establishment of a temperature mean in the Bay of Fundy waters, which, in turn, assist to keep the harbor of

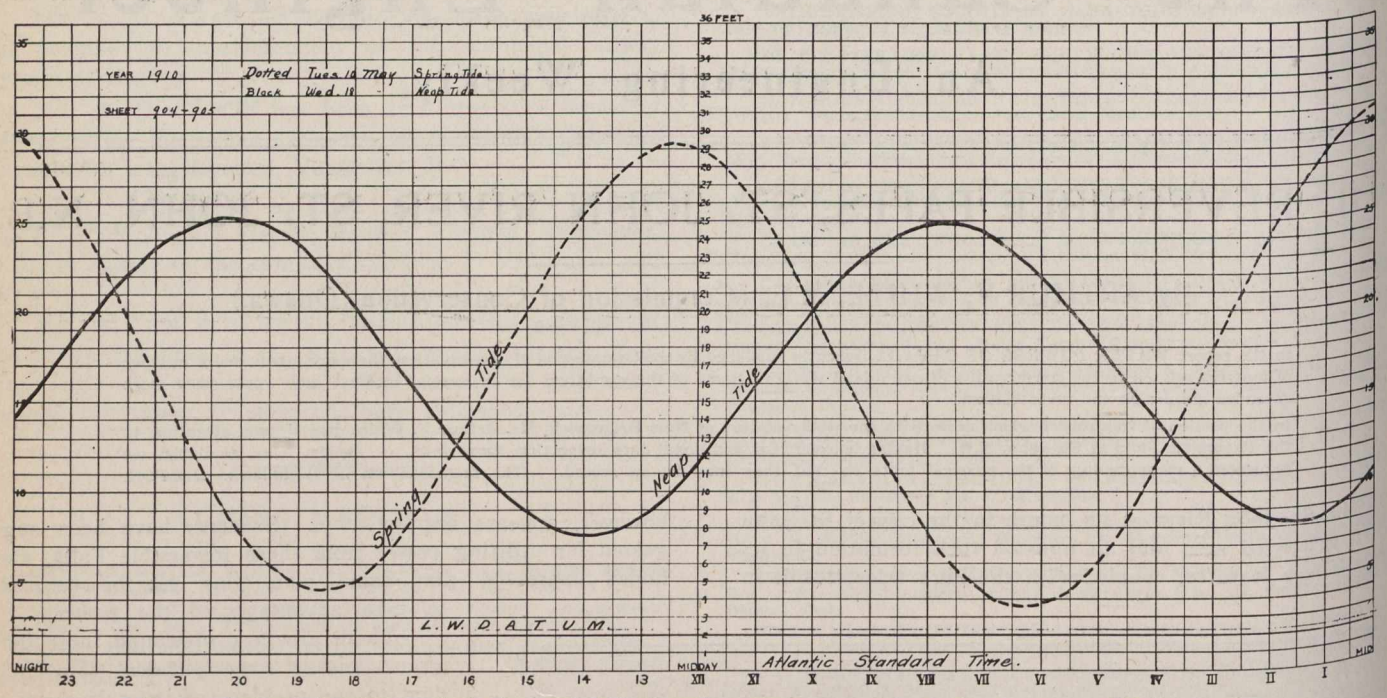

Fig. 3.—Curves showing typical rise and fall of spring and neap tides in the harbor at St. John, N.B.

(Courtesy of Tidal and Current Survey, Ottawa).

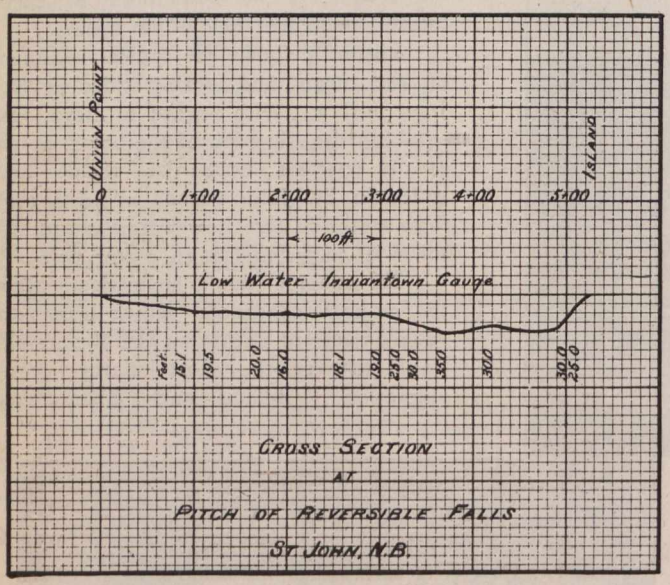

Fig. 4.—Cross section at pitch of Reversible Falls, St. John, N.B.

St. John free from ice, and in consequence assists to make it so valuable a winter port.

ALUMINIUM.

Aluminium, comparatively few years ago a rare metal, too expensive to have any particular economic value, has today come into wide use in a great number of industries. The consumption in the United States in 1911, according to the United States Geological Survey, was 46,125,000 lbs., the price in New York ranging from 18½ to 22 cents per lb.

The use of metal aluminium and its alloys in automobiles, dirigible balloons and aeroplanes is constantly increasing. In the form of magnalium it is used in the beams of analytical balances, and other new alloys are being constantly brought to public attention. The metal is also employed in paper decorations and for wrapping. It is reported to have been used in the textile industries, where it has been combined with silk, to which it imparts a peculiar brilliancy, particularly adapted to theatrical and ceremonial costumes. It has found and is constantly finding a host of applications in smaller articles of everyday use and ornamentation. The Ordnance Department of the United States Army recently awarded a contract for sixty thousand or more aluminium

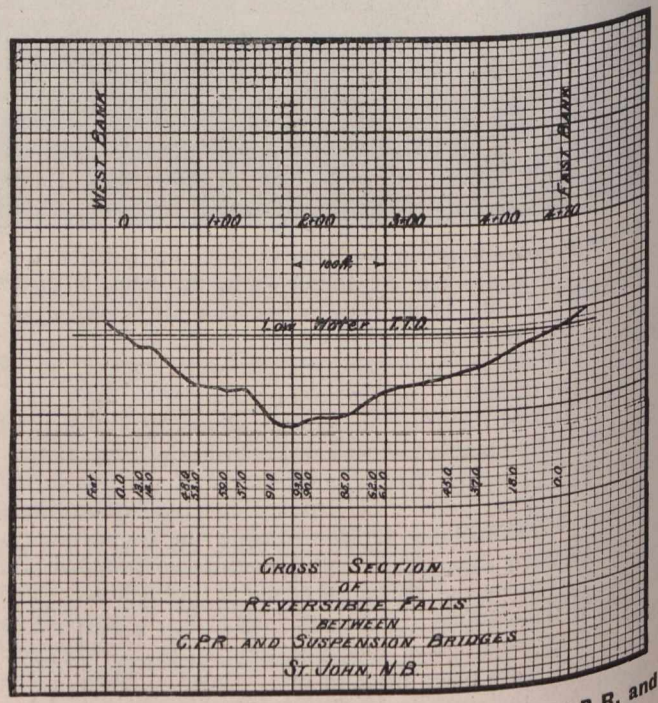

Fig. 5.—Cross section of Reversible Falls between C.P.R. and Suspension bridges, St. John, N.B.

canteens and cups. The metal is now being used in various other ways in the light field equipment of the army.