

INTERCOLONIAL RAILWAY.

General Instructions (No. 1.)

Respecting Measurement of Streams.

1. In order to determine finally the number, the character, and the clear waterway of Culverts and Bridges on the Line of Railway, information respecting the freshet discharge of streams is required.

2. Books have been prepared for the purpose of recording information—No. 1 for entering in the field, particulars as to the sectional area, velocity, and volume of streams; and Book No. 2, for entering results obtained from No. 1, and in addition other information bearing on the subject.

3. The observations and measurements for Book No. 1 must be made, if practicable, when the snow freshets are at, or near, their height; and if there be more than one freshet, the observations should be repeated.

4. The sectional area, velocity, and volume may be obtained with sufficient accuracy as follows:—

(1.) Select a place near where the Line of Railway crosses the stream, and where its bed and sides are tolerably regular, well defined and free from obstructions. Measure off a section of the stream, say 100 feet in length, in ordinary cases; at this place, drive stakes at the water's edge on both sides, and at each end of the section, until the heads of the stakes be level with the water; these stakes will be left until the water falls, and then the sectional area ascertained.

(2.) Take a piece of wood about the size of an egg; drop this into the stream at the upper stakes, noting