

transmitted monthly, and must form in most cases an exceptional class, and be regarded as analogous to the log-books of ships, which though highly valuable for studying the past, and thus indirectly for interpreting the present, cannot be brought into direct and immediate use,

Where postal arrangements are convenient, it is probable that the light houses will be placed before long on the same footing with ordinary land stations, and that in special circumstances, some will eventually be brought into telegraphic connection with the centre, whenever a telegraph system shall come into operation.

In the summer of 1871 register books for containing a record of the direction and force of the wind, the general state of the weather, the amount of rain-fall and the temperature of the air were supplied to thirty-seven light houses. To thirteen no instruments were furnished, the object in these cases being to obtain a simple record of the wind and weather. Thirteen light-house stations were supplied with rain-gauges only; and eleven with thermometers as well as rain-gauges.

To secure proper exposure and protection to the thermometers, each temperature station is furnished with a screen in which two thermometers may be suspended.

The screen consists of a rectangular case, formed on its four sides and bottom by thin louvre or venetian slats, which cut off radiation from neighbouring terrestrial objects, and give free admission to the air.

To protect the screen from the sun and from rain, it is accompanied by a portable shed, in the interior of which the screen is supported, and which is intended to stand on the north side of a building. The shed consists of a double roof, with louvre slats towards the east and west, to intercept the morning and evening sun, and is open towards the north. The shed is supported by iron brackets or straps to the north wall of the building, and at such a distance from it as to allow the passage of a free current of air between the wall and the shed.

The screen and shed are contrived so as to allow the thermometer to be read either from a window or from the outside.

On the stations in correspondence with the Magnetic Observatory, Toronto.

The following are the chief stations either appointed to be, or actually in operation.

CHIEF STATIONS.

Station.	Superintendent.
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ONTARIO.

Ottawa.....	Department of Marine and Fisheries.
Woodstock (*)	J. Montgomery, Prof. of Mathematics, C. L. Institute.

PROV. OF QUEBEC.

Montreal.....	Dr. Smallwood.
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NEW BRUNSWICK.

St. John.....	G. Murdoch, C. E.
Fredericton.....	Professor Jack.

(*) At Woodstock, Ontario, observations of temperature have been taken for several months at equal intervals of three hours, a labor hitherto performed at no other station but Halifax. Woodstock, therefore, though not yet subsidized, is included among the chief stations.

NOVA SCOTIA.

Halifax.....	F. Allison.
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MANITOBA.

Winnipeg.....	Officers of St. John's College.
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In the following list the ordinary stations in each Province are placed in classes, class I. being the highest, (†) and therefore the same as that indicated by the letter (a) under the head of ordinary stations at the commencement of this article.

Where, as in some instances, a station is only partly furnished with the instruments designed for it, its class has been determined with reference to the register forms used there, and not to the instruments actually in operation. Thus the light-house stations are reckoned in class II, although as already stated, and as further explained by the heading of the list of light houses, only eleven as yet are furnished with thermometers.

ORDINARY METEOROLOGICAL STATIONS.

In correspondence with the Magnetic Observatory, Toronto.

Station.	Observer.
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ONTARIO.

Class I.

London, Middlesex	Dr. H. Lander, Sup. Lunatic Asylum
Stayner, N. R., Simcoe.	Mr. R. J. Cole

Class II.

Dundas, G.W.R., Wentworth	Mr. J. Geddes
Glencoe, G.W.R., Middlesex	" Wm. Hayden
Brampton, G.T.R., Peel ..	" J. Reynolds
Thornhill, N.R., York ..	" J. Duncan
Kincardine, Bruce	Dr. D. W. Martyn
N. Gwillimbury, York.	Rev. Canon Ritchie
Gravenhurst, N. Victoria.....	Mr. T. W. Robinson
Fitzroy Harbor, Carleton	Rev. J. Tait
Brockville, G.S., Leeds.	Mr. W. R. Bigg
Perth, G. S. Lanark....	" A. Baker
16 Lighthouses.....	

Class III.

Collingwood, Simcoe ..	Mr. W. A. Parlange
Georgina, York	Cap. Sibbald, R.N
Markham, G. S. York ..	Mr. J. H. Hughes
Weston, York.....	Rev. W. F. Checkley
Widder, Lambton.....	Mr. A. Duffus
Niagara, Lincoln	" S. D. Mills
Seaforth, G.T.R. Huron.	" R. B. Moodie
Wyoming, G. W. R., Lambton	" J. McKay
Lucan, G.T.R., Middlesex	" F. R. Jennings
Ailsa Craig, G. T. R., Middlesex	" R. Mumford
Parkhill, G.T.R., Middlesex	" G. B. Reeve
Orillia, Simcoe.....	" H. Fitton
Newmarket, G.S. York.	" W. R. Nason
Holland Landing, York.	" W. H. Thorne
Platteville, Oxford.....	" R. Treffry
Stoney Point, G. W. R., Essex	" W. Dickson

(†) This arrangement of classes is the reverse of that employed in the year book of 1871.