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## REVISION OF THE SILURIAN OF SOUTH-WESTERN ONTARIO.

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At the 1912 meeting of the Paleontological Society of America, Professor Charles Schuchert read a paper entitled "The Cataract, a New Formation at the Base of the Silurian in Ontario and New York." During the summer of 1912 the writer was engaged by the Geological Survey of Canada in revising the Silurian of Manitoulin Island and Georgian Bay, and was with Professor Schuchert during his field observations in these regions. A preliminary statement of the results of the work will appear in the Summary Report of the Geological Survey of Canada for 1912. In the meantime, it may be stated that the "Cataract" formation in the Georgian Bay region consists of two very distinct divisions—a lower dolomite member 11 or 12 feet thick near Collingwood, and 50 feet or more in thickness on parts of Manitoulin Island; and an upper shale member of varying thickness.

For the dolomite division of the Cataract formation the name "Manitoulin member" is proposed, because of its importance on Manitoulin Island. Here it rests upon soft green shale at the top of the Richmond formation. At Cabot Head 6 feet or more of soft, red shale intervene between the green Richmond shale and the base of the Manitoulin dolomite.

The red clay-shale, which forms the upper division of the formation on Manitoulin Island, is well exposed along the road between the villages of Kagawong and West Bay, at a locality north-east of Kagawong Lake. For this division, the name "Kagawong member" is proposed. In the Manitoulin region the Kagawong shale is overlain by about 6 feet of green shale about 6 feet thick which appears to grade upward into the argillaceous dolomite of the Lockport formation. At Cabot Head probably 16 feet of firm red shales underlie soft red clay-shale similar to that on Manitoulin Island. Firm red shale,

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