

the Association. W. J. Clarke, Bell Telephone Co., Toronto; W. B. Evans, Alex. Stark, Bell Telephone Co., Toronto; James P. McQuade, National Conduit Co., New York; A. T. Smith, Bell Telephone Co., Kingston; J. C. McLachlan, Bell Telephone Co., Hamilton; Samuel Gardiner, Electric Light and Power Co., Hamilton; Frank Badger, Royal Electric Co., Montreal; W. M. Goodwin, G.T.R., Hamilton; C. J. Leslie, Bell Telephone Co., St. Catharines; Samuel J. T. Brown, Bell Telephone Co., London; G. L. Shaeffer, Bell Telephone Co., Hamilton; George

Thursday, 16th. Reading of papers, discussion, business, etc. 2 p.m., Drive.

It was resolved on motion of Mr. Smith that the Hamilton members of the Executive associated with the Managers of the Great North Western Telegraph Co. and Bell Telephone Co., be a committee on invitations.

REQUIREMENTS OF A PERFECT STEAM BOILER.

1. The best materials sanctioned by use, simple in construction,



JAMES STREET NORTH, HAMILTON.

Black, G.N.W. Telegraph Co., Hamilton; G. C. Stannard, Construction and Electrical Supply Co., Toronto; W. G. Fraser, Bell Telephone Co., Petrolea.

The following persons were elected as Associate members. D. F. Symons, barrister, Toronto; Herbert Beaumont, Engineering Department Toronto Water Works; G. J. Kilpin, Toronto; T. J. Carroll, Brass Mfg. Co., Hamilton; K. Whipple, Hamilton; Geo. W. Sadler, Montreal; W. J. Duckworth, Toronto; W. F. Brown, W. F. Walker, Galt; F. G. Proutt, Electric Light Co., Bowmanville; W. J. Jones, Hamilton.

The President was deputed to secure a suitable design for a certificate of membership.

Messrs. Thomson, Walland and Dunstan were appointed a committee to endeavor to make arrangements for an excursion to and luncheon and band concert at Burlington Beach on the evening of Wednesday, June 15th.

The Toronto members of the Executive were authorized to choose a design for a members' badge and purchase the requisite number of badges. An outline of the order of proceedings of the Convention was decided upon as follows.

Tuesday, 14th. 11 a.m., meeting of the Executive. 2:30 p.m., Opening session. Election of officers. President's address. 8 p.m., Inspection of Electric Light Co.'s new station.

Wednesday, 15th. 10 a.m. to 12:30 p.m., reading of papers and discussions thereon. 2 to 3 p.m., visit to Bell Telephone Exchange. 7:30 p.m., trip by boat to Burlington Beach; luncheon at Ocean House.

perfect in workmanship, durable in use, and not likely to require early repairs.

2. A mud drum to receive all impurities deposited from the water, in a place removed from the action of the fire.

3. A steam and water capacity sufficient to prevent any fluctuation in pressure or water level.

4. A large water surface for the disengagement of the steam from the water, in order to prevent foaming.

5. A constant and thorough circulation of water throughout the boiler, so as maintain all parts at one temperature.

6. The water-space divided into sections so arranged that should any section give out, no general explosion can occur, and the destructive effects will be confined to the simple escape of the contents; with large and free passages between the different sections, to equalize the water-line and pressure in all.

7. A great excess of strength over any legitimate strain, constructed so as not to be liable to be strained by unequal

expansion, and no joints exposed to the direct action of the fire. 8. A combustion-chamber so arranged that the combustion of the gases commenced in the furnace may be completed before their escape by the chimney.

9. The heating surface as nearly as possible, at right angles to the current of heated gases, so as to break up the currents and extract the entire available heat therefrom.

10. All parts readily accessible for cleaning and repairs. This is the greatest importance as regards safety and economy.

11. Proportioned to the work to be done, and capable of working to its full rated capacity with the highest economy.—*Steam.*



HAMILTON BAY.