

rod or a finely divided scale attached to a rod which is held on a stake driven into the ground close to the instrument, then reverse the instrument, sight the distant point again, and again read the levelling rod. If the two readings agree the adjustment is good; if not then the diaphragm should be raised or lowered until the two readings, taken as above described, agree. If the transit is provided with a telescope level and it is proposed to use the instrument as a level should occasion require it, this adjustment should be made before adjusting the level by the "pig method."

If on making these adjustments the intersection of the cross wires is found to be a little out of the centre of the field of view of the telescope, it is not a matter of great consequence. Yours truly,

Louis B. Stuart.

Toronto, July 4th, 1908.

## ENGINEERING SOCIETIES.

**CANADIAN RAILWAY CLUB.**—President, L. R. Johnson; Secretary, James Powell, P.O. Box 7, St. Lambert, near Montreal, P.Q.

**CANADIAN STREET RAILWAY ASSOCIATION.**—President, E. A. Evans, Quebec; secretary, Acton Burrows, 157 Bay Street, Toronto.

**CANADIAN INDEPENDENT TELEPHONE ASSOCIATION.**—President, J. F. Demers, M.D., Levis, Que.; secretary, F. Page Wilson, Toronto.

**CANADIAN SOCIETY OF CIVIL ENGINEERS.**—413 Dorchester Street West, Montreal. President, J. Galbraith; Secretary, Prof. C. H. McLeod. Meetings will be held at Society Rooms each Thursday until May 1st, 1908.

**QUEBEC BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.**—Chairman, E. A. Hoare; Secretary, P. E. Parent, P.O. Box 115, Quebec. Meetings held twice a month at Room 40, City Hall.

**TORONTO BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.**—96 King Street West, Toronto. Chairman, C. H. Mitchell; Secretary, T. C. Irving, Jr. Traders Bank Building.

**MANITOBA BRANCH OF THE CANADIAN SOCIETY OF CIVIL ENGINEERS.**—Chairman, H. N. Ruttan; Secretary, E. Brydone Jack. Meets first and third Friday of each month, October to April, in University of Manitoba.

**ENGINEERS' CLUB OF TORONTO.**—96 King Street West. President, J. G. Sing; secretary, R. B. Wolsey. Meeting every Thursday evening during the fall and winter months.

**CANADIAN ELECTRICAL ASSOCIATION.**—President, N. W. Ryerson, Niagara Falls; secretary, T. S. Young, Canadian Electrical News, Toronto.

**CANADIAN MINING INSTITUTE.**—413 Dorchester Street West, Montreal. President, W. G. Miller, Toronto; secretary, H. Mortimer-Lamb, Montreal.

**NOVA SCOTIA SOCIETY OF ENGINEERS, HALIFAX.**—President, J. H. Winfield; Secretary, S. Fenn, Bedford Row, Halifax, N.S.

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, TORONTO BRANCH.**—W. G. Chace, Secretary, Confederation Life Building, Toronto.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—29 West 39th Street, New York. President, H. L. Holman; secretary, Calvin W. Rice.

## SOCIETY NOTES.

### THE AMERICAN SOCIETY FOR TESTING MATERIALS.

The eleventh annual meeting of The American Society for Testing Materials was held at Atlantic City, June 23rd to 27th. There were nearly 300 members in attendance, and the membership of the Society is now 1,015.

The President, Dr. C. B. Dudley, in the annual address, took for his subject, "Some Features of the Present Steel Rail

question." Mr. W. H. Aiken read a paper on "Testing is Not Inspection."

Wednesday, a special rail session was held when the Committee on Standard Specifications for Iron and Steel reported. Three changes were suggested to be balloted upon by letter ballot.

(1) To modify paragraph 3 to the effect that one drop test shall be made on every blow of steel for rails weighing 85 to, and including, 100 pounds per yard.

(2) To modify paragraph 14 to the effect that No. 2 rails shall be accepted to at least 5 per cent. of the whole order.

(3) To add the following sentence to paragraph 14:—"Rails rejected under the drop test will not be accepted as No. 2 rails."

## ORDERS OF THE RAILWAY COMMISSIONERS OF CANADA.

Copies of these orders may be secured from the Canadian Engineer for a small fee.

4921—June 2—Ordering the Ottawa Electric Railway Company to complete the work on the Somerset Street Bridge, Ottawa, Ont., within six months from the date of this Order, with proviso that the railway company shall be at liberty to apply to the Board for a further extension of time if good reasons exist therefor.

4922—June 25—Authorizing the Windsor & Tecumseh Electric Railway to cross two spurs of the G.T.R., in the Township of Sandwich East, County of Essex, Ont.

4923—June 25—Authorizing the G.T.P. Ry. and C.N.R. to operate their trains over the crossing at a point in Parish Lot No. 120, Portage la Prairie, Manitoba, without bringing said trains to a stop.

4924—June 25—Permitting the G.T.R. and C.P.R. to carry under special rate notices certain freight traffic for delivery to them by vessel owners at Kingston, Brockville and Prescott, for transportation to Montreal, such carriage being necessary owing to an interruption to navigation caused by a break in the Cornwall Canal.

4925—June 26—Authorizing the Erie Telephone Company, to cross the tracks of the G.T.R. at Talbot Road, west of Jarvis, Ont.

4926—June 26—Authorizing the G.T.R. to carry its wires across the tracks of the C.N.R. at West Fort William, Ontario.

4927—June 26—Authorizing Neil Watson, of Chatham, Ontario, to erect, place and maintain wires across the tracks of the Pere Marquette Railway one mile east of Blenheim, Ont.

4928—July 4, 1907—Authorizing the G.B. & S. Railway to cross with its tracks the lands and tracks of the Medonte Railway (owned and operated by the G.T.R.) at Coldwater.

4929-30-31—June 26—Authorizing the Erie Telephone Company to cross the tracks of the Grand Trunk at Garnet, Canfield, and Talbot Road, one mile west of Canfield Junction.

4932—June 26—Authorizing the Erie Telephone Company to cross the tracks of the M.C.R.R., one mile west of Canfield Junction, Ontario.

4933—June 26—Authorizing the Montreal Rolling Mills Company to erect, place and maintain an automatic railway and the structure supporting same, between the applicant company's works and the Lachine Canal, across the tracks of the G.T.R., Lachine Canal branch.

4934—June 24—Ordering that the expense of the maintenance and operation of the interlocking plant and signal and derailing system near St. Constant, P.Q., be borne and paid for as follows:—forty-two per cent. by the Q.M. & S. Ry. Company, and fifty-eight per cent. by the C.P.R.; the Q.M. & S. Ry. Company to pay all expenses in connection with the rearrangement of and additions to the said plant.

4935—June 25—Granting leave to the C.N.R. to construct branch line of railway from a point in Lot 29, Sec. 21, Town-