

singular conclusion. The flat girder bridge is cheap, is virtually standardized, it defies all natural outline but it includes a mass of unnecessary material from the point of equal stress. The Forth Bridge is admittedly a structure which satisfies the eye, its material is deliberately disposed to afford equal strength, consequently it possesses a natural outline and is proportionate.

It would seem, therefore, that the only cases where commercial considerations coincide with pleasing outline is where the structure is large and the economic disposition of material is the method of least cost.

The stress diagram of a loaded girder is in most instances a conic section curve. Structures designed from economic material considerations must therefore embody curves such as the ellipse, hyperbola, parabola, all of which satisfy the eye more than a simple straight line.

The question of ornamentation is left untouched; structural steel work is best left without the treatment quite proper to other material. It should rely entirely upon proportion and mass.

While the utilitarian aspect of a steel structure is its primary consideration; given the necessary knowledge, beauty can be found in many engineering products.

It is worth pointing out that there was a time when elaborate mouldings were used to decorate steam engines and classic type columns supported standing loads in machines and elsewhere. It is recognized to-day that such decoration is obsolete and unfitting, making an atrocity of what otherwise would be well-proportioned with natural line.

PERSONAL.

WM. SLOAN, of Nanaimo, B.C., has been appointed Minister of Mines for British Columbia.

H. J. HUMPHREY has been appointed superintendent, Farnham Division, Quebec District, C.P.R.

GEORGE SLEEMAN, chairman of the Light and Heat Commission, Guelph, Ont., has resigned owing to ill-health.

THOMAS ADAMS, of the Commission of Conservation, Ottawa, recently addressed the Canadian Club at Quebec on the subject of town planning.

ROADMAN M. LEE, of South Vancouver, B.C., has been transferred from the sewerage office to the engineering department, as assistant to Municipal Engineer S. B. Bennett.

FRANK W. COOPER, A.M.Can.Soc.C.E., has resigned the position of superintendent, Schreiber Division, Algoma District, C.P.R., Schreiber, Ont. He will be succeeded by G. J. FOX.

FREDERICK J. BRULE has resigned from the staff of the Anaconda Copper Company to accept the position of chief engineer of the British American Nickel Corporation. Mr. Brule will reside in Toronto.

W. B. YOUNG, chief draughtsman and designer in the office of the city engineer, Vancouver, B.C., has been granted leave of absence for an indefinite period by the city council. Mr. Young has obtained a commission in the Canadian Engineers for overseas service.

W. F. ANGUS, vice-president and managing director of the Canadian Steel Foundries, is retiring from his present position to become one of the executive officers of the Dominion Bridge Company. He will, however, remain a director of both the Canadian Car and Foundry Company and the Canadian Steel Foundries.

OBITUARY.

Captain JOHN TRETHERWEY, a retired mining engineer, who for a long time was associated with the Silver Islet Mines, in the Lake Superior district, died in Toronto this week at the age of 77. He had lived retired in Toronto for ten years, coming from Owen Sound, where he was a resident for twenty years.

CANADIAN SOCIETY OF CIVIL ENGINEERS, ANNUAL MEETING.

The Annual Meeting of the Canadian Society of Civil Engineers will be held in Montreal January 23rd, 24th and 25th, 1917. These dates have been decided upon by the council of the society and further details regarding the programme will probably be issued within the next fortnight. It is expected by the members that the usual arrangements will be made with the passenger associations for return passage at single rates to all members who attend the meeting.

CANADIAN SOCIETY OF CIVIL ENGINEERS, EDMONTON BRANCH.

Mr. N. M. Thornton, general manager of the Mountain Park Collieries, was the speaker of the evening at the regular meeting of the Edmonton Branch, Canadian Society of Civil Engineers, held on the 20th inst. His subject was "Past and Present Methods of Coal Mining." Mr. Thornton dealt principally with the Northumberland coal fields of England, and from a historical point of view, tracing their development from the earliest times down to the present. The speaker is intimately acquainted with the coal fields of that district and his address was listened to throughout with the greatest of interest.

CANADIAN SOCIETY OF CIVIL ENGINEERS, VICTORIA BRANCH.

At the annual meeting of the Victoria Branch, Canadian Society of Civil Engineers, which was held on Wednesday, December 13th, with an attendance of 21 members, the following officers were elected for the ensuing year:—

Executive committee: Chairman, D. O. Lewis; vice-chairman, R. A. Bainbridge; treasurer, E. Davis; secretary, R. W. Macintyre; C. Hoard, E. G. Marriott, F. C. Gamble and H. W. E. Canavan. Auditors, Lewis W. Toms and J. B. Shaw.

On the 9th inst. the provincial division for British Columbia met in Victoria at the branch rooms for the annual meeting, and the proposal that those now in office should be re-elected for 1917 was unanimously carried. The chief business dealt with was the completion of by-laws for the division and the submission of same to both branches and headquarters for approval and adoption. The secretary, Mr. Cleveland, promised to have copies ready at an early date. The officers of the division are: Chairman, T. H. White; secretary-treasurer, E. A. Cleveland; representatives of branch—Vancouver, R. F. Hayward and A. D. Creer; Victoria, D. R. Harris and W. Young; representing outside members of British Columbia, W. K. Cwyor and A. E. Ashcroft.