

shear may, under certain conditions, approach the total load  $P$  on the column and hence the total area of lacing and batten plates should be sufficient to carry the shear. This will serve as a good criterion in designing lattice columns and represents the writer's practice, though the whole subject is largely a matter of standards."

I would draw attention to Fig. 8a, which shows a column fixed top and bottom. It will be noticed that there is a compressive stress at the top and bottom, designated by  $+p$ , and this, then, appears at the centre on the opposite side. Now, this stress  $+p$  is due to the bending of the column, and might, as Mr. Molitor says, approach the size of  $P$  if the deflection were great enough.

The stresses shown in Fig. 8a should fulfil Mr. Molitor's conditions excepting that one also gets a transverse shear as given by Equation 42. I do not quite see how Mr. Molitor could get a longitudinal shear without a transverse shear, and if the conditions that I suggest are right, then the longitudinal shear must be taken up by  $\frac{l}{4}$ , and not by the whole length of the column.

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City Architect and Supt. of Bldg.,

Toronto, Ont.

Toronto, April 27th, 1916.

## COAST TO COAST

**Petrolea, Ont.**—Hydro power was turned on for street lighting and domestic use last week.

**Toronto, Ont.**—The hydraulic dredge "Cyclone" has started work on the Lake Shore Boulevard scheme.

**Toronto, Ont.**—The Trent Valley power bill, validating the purchase of the Seymour power interests, has been passed against strong Liberal opposition.

**Edmonton, Alta.**—The Legislature has made an important amendment to conserve the natural resources of the province. The export of natural gas has been prohibited.

**Ojibway, Ont.**—Official denial is given to reports which recently have been current to the effect that the United States Steel Corporation had abandoned its plans to erect a large new plant here.

**Medicine Hat, Alta.**—If the C.N.R. build their line here this year it is likely that the Saskatchewan Bridge and Iron Works will complete and operate their new plant. About 200 men will be employed.

**Banff, Alta.**—Considerable roadwork has been done in the Rockies by interned aliens. They have been constructing parts of the new automobile road which will ultimately run from Vancouver to Winnipeg.

**Calgary, Alta.**—The trouble between the C.P.R. and the farmers in the western irrigation block has been settled. An entirely new contract will be entered into by the settlers, of whom there are about 1,000 in the western block.

**Edmonton, Alta.**—A new hotel enterprise in the form of a tented city is to commence operations in the near future in Jasper Park. The government has built a network of good roads to points of interest in the park during the last year.

**Port Moody, B.C.**—The main building of the steel works is now completed and 26 car-loads of machinery is now on the ground while heaps of miscellaneous scrap

iron and steel litters the ground in the immediate vicinity of the plant. About 50 men are employed.

**Toronto, Ont.**—The need of diverting Bloor Street to provide for the construction of a viaduct over the Humber River at some future date has been brought to the attention of the Board of Control by R. Home Smith. The matter has been referred to Works Commissioner Harris.

**Montreal, Que.**—The reason for the increase in the capitalization of the Nova Scotia Steel and Coal Company, which was authorized at the annual meeting a few weeks ago, is now becoming apparent. It is now believed that the company will soon embark upon the steel shipbuilding industry.

**Montreal, P.Q.**—The Canadian Research Bureau has been established by the Canadian Pacific Railway. Its purpose is to investigate and study the natural resources of the country in a scientific manner. Research laboratories will be established at different points in the Dominion.

**Victoria, B.C.**—According to Jos. J. Warren, president of the Kettle Valley Railroad, the line from Nelson to the coast will not be put in operation until July 1st. The delay has been caused, it is said, by the heavy snow in the interior. Only  $1\frac{1}{2}$  miles of line remain to be completed.

**Peterborough, Ont.**—The township of North Monaghan is doing roadwork on broader and more extensive lines this spring than it has attempted heretofore. The work for the most part consists of rebuilding and repairing gravel roads. A new road drag has been purchased by the authorities.

**Toronto, Ont.**—Dr. T. Kennard Thomson has outlined a scheme for a new power development at Niagara Falls. Dr. Thomson's scheme is to build a dam several miles below the Falls and thus preserve the natural beauties of the district, the water being used after it passes over the Falls.

**Victoria, B.C.**—The Provincial Government is considering a project for the development of the water power possibilities of the province on a large scale, according to an announcement by Hon. Lorne Campbell, Minister of Finance, who was the guest of honor at the annual meeting of the Victoria Board of Trade.

**Welland, Ont.**—At a joint meeting of the Council and the Hydro-Electric Power Commission a statement was made that the consumption of hydro power had reached 73,000 horse-power. This, it is said, is the greatest amount owned by any municipality in Ontario. The plant has showed a surplus ever since the first year of operation.

**The Pas, Man.**—Steel laying on the Hudson Bay Railway will be resumed on May 1st from mileage 242. The steel cantilever bridge at this mileage has been completed and trains will be operated over it shortly. There is a demand for railway laborers and 1,000 men are required to carry on the season's construction programme.

**Winnipeg, Man.**—The waters of the Red River have been in flood and damage amounting to thousands of dollars has been done. Sewers have been undermined and pavements have collapsed. Many buildings have been damaged by their cellars being flooded and foundations weakened. The railways operating out of here have had great difficulty in keeping their lines open.

## VANCOUVER BRANCH, CANADIAN SOCIETY OF CIVIL ENGINEERS.

E. G. Matheson, M. Can. Soc. C. E., gave his postponed lecture on "Pneumatic Foundations" on April 13th last.